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A CASE OF OPIUM POISONING, WITH A DISCUSSION OF SOME QUESTIONS OF MEDICAL JURISPRUDENCE IN RELATION TO SUCH CASES.

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On Tuesday evening last, I was called, about a quarter of nine o'clock, to attend Mrs. A., the messenger informing me that he did not know what was the matter, further than that he had found the lady in an unconscious condition, the lips, skin of the face and the finger tips being blue. On repairing to the house of my patient, I found her in the condition set forth by the messenger. The eyes were set, the conjunctive insensible to touch, pupils contracted to the size of a small pin's head, the jaw fallen, tongue dry and brown. Perspiration, especially of the face, very profuse, but on applying the hand to the surface, the integument was decidedly cool, if not cold. From the family I obtained this story: that they had been having a species of family reunion during the day, and in consequence a few glasses of lager beer, not enough, however, to have affected any of them; that late in the afternoon the patient had attended a christening at one of the neighbors, at which, probably, she had had a glass or two of light, German wine; of this, however, they could not speak authoritatively, as she had not been accompanied by any member of the family. She was last seen by one of the family about dusk, a quarter of, or at six o'clock; her movements after this time not having been noticed, as the members

of the household were up stairs, whither they retired immediately after dinner, which was served at five o'clock. It was, therefore, it seems, between this hour and half past eight o'clock that she had taken either morphia or laudanum, from the poisonous effects of which she was undoubtedly suffering. At half past eight she was found seated on a chair, in the yard, by her husband, unconscious, but capable of being roused, if violent measures were instituted. Upon my arrival, if supported on either side, steps could be passively taken, a sort of automatic movement, and on violently dashing iced-water in the face, the eyelids *convulsively* opened; within five minutes even these actions ceased. It was not known what period of time had elapsed since the dose had been taken, though it was known that she had vomited about six o'clock; this, however, was charged to the beer imbibed earlier in the afternoon; as a consequence I concluded that there was not much hope of any benefit by emesis; still I attempted to produce it by means of mustard and water, sulphate of zinc, etc., etc.; the stomach, however, failed to in any way respond to the measures invoked to produce vomiting: a stomach pump, or the means of providing a substitute, not being at hand, and the presumption being that the larger portion of the poison had probably been absorbed, no further attempts were made to deal with the stomach directly. I should here observe, that early in the case, when violently aroused, in the manner spoken of above, there seemed, from the actions of the patient, to be an intense itching of the facial integument, the hands being rapidly (*convulsively*) carried up to the face, which was then thoroughly scratched. The

face was pale and the lips decidedly cyanosed, as were also the finger tips; respirations eleven to the minute, with a pulse of eighty. There was no smell of laudanum on the breath; tongue in a decided tremor, very dry, owing somewhat to the fact that breathing was performed altogether through the mouth; in color a very dark brown in the centre (much the color of good opium), the edges a decided (congested) red, and the under side a delicate pearl. Heart's action excited and tumultuous. As measures of treatment, flagellations with a wet towel and the hand were administered, until the arrival of a battery. A hypodermic of $\frac{1}{2}$ of a grain of atropia was administered, which was followed in half an hour by a similar injection; a very slight responsive action on the part of the pupil took place under this second dose, but rapidly disappeared, the pulse mounting up after the last injection to 105; at 10 $\frac{1}{2}$ P.M. the battery (Gaiffé's) was applied, another $\frac{1}{2}$ grain of atropia also being administered, the pulse slowly running up to 110, respirations falling to six and seven to the minute; no manifestations of uneasiness were produced by the full strength of the battery being applied over the emergence of the trifacial, but I noticed that there seemed to be a more decided impression produced by placing a pole of the battery in contact with the ear, pressing it into the external auditory meatus (the other pole being over the diaphragm); even when coming out of the stupor produced by the poison, and when sensation was returning, this seemed to be the only point at which pain was complained of; from 110 the pulse rose to 116; respirations nine to the minute; a sudden fall then took place in the pulse to 101, at which time the sixth dose of $\frac{1}{2}$ of a grain was administered, the pupils slowly beginning to show the mydriatic effect of the drug; the pulse mounted again to 104; respiration 18; followed in about an hour by a pulse rise to 116, when another $\frac{1}{2}$ was administered; in about another hour the pulse suddenly fell to 96, the face becoming thoroughly congested, reddening having commenced when the pulse marked 101, or at the time of the sixth hypodermic.

With a pulse of 105, and unconsciousness, there was a decided chill, the feet and limbs as high as the knees being cold; this rigor was, however, of but short duration, readily yielding to the application of hot bottles of water and wrappings in blankets. The pupils at no time enlarged beyond their normal size, though almost the first thing complained of by the patient, after emerging from unconsciousness, was dryness and soreness of the fauces; this latter may, however,

be charged partially to the use of a stiff feather used to promote vomiting, which came on at the time of the sudden fall in pulse from 116 to 96, and at which time she ejected some strong coffee, which had been administered by my directions when she was first seen. Intense tenderness over the stomach, accompanied by frequent vomiting and a subacute condition of bronchitis, made their appearance during the twenty-four hours subsequent to her emergence from narcosis, accompanied by great soreness of the eyes and supraorbital region, just over the supraorbital foramen, as well as of the whole muscular system, due in the latter case, no doubt, to the thorough whipping received. An ounce bottle marked laudanum was found, when search was instituted at my direction, in her dress pocket. This quantity had been purchased for the use of her husband in sickness, over six months since; one-half was used at the time, and the rest, which formed the dose taken by this individual was allowed to stand in a closet; its strength was that of the U. S. P., increased, of course, by what little evaporation of the menstruum may have taken place during the interim. I would suggest that in all cases of poisoning, suicidal or otherwise, the physician call for the bottle or package from which the poison was taken, and that he insist upon retaining it in his possession, not allowing any one to handle it subsequent to its coming into his possession; if this precaution be neglected, it may give rise to very lamentable and undesirable results in case it should transpire that a question of criminal poisoning should arise, for the query might be presented, how much of a given drug or what drug was taken; then the presence of the original package or bottle would be important; or it might happen, as in this case, that parties lived together unhappily; that a poisoning took place shortly after a meal, and that no one either could or would give information; if the person did not die a criminal suit might, nevertheless, follow; and while the finding of a bottle upon the person of the one poisoned would not, *per se*, indicate suicidal intent, yet it would be important in evidence. Further, the person should be closely questioned, *immediately after issuance from the effects of the poison*, as to what took place previous, and what subsequent, so far as he remembers, to the taking of the drug. These questions should again be asked after the lapse of a number of hours, say a subsequent visit, in order to see how the two statements tally, for on a second examination a far different story may be told, because of personal intimidation or for family reasons; if the case then comes to court, an infer-

ence can be drawn from both stories, and a just conclusion arrived at. If unconsciousness has been present, the time of its coming on, the length of its continuance, and the time of its cessation, should carefully be noted, in order that an opinion may be formed as to the proper relationship or proportion between the amount taken and results produced. In the case above noted a half ounce of laudanum, taken when more or less alcohol was present in the system, and subsequent to a meal, produced an unconsciousness of ten hours, during which time seven hypodermic injections, of one-thirty-second grain each of atropia, were given, and the battery continuously applied. How quickly the effects were noticed is important. In the case under consideration the drug was swallowed in an outhouse; the patient walked to the hydrant, some thirty feet away, rinsed and corked the bottle, placed it in the pocket of her dress, and walked half way back to the outhouse, where unconsciousness came on and she sank upon a chair. Note should be taken of the character, quantity, mode of administration, and physiological effects of all antidotes employed, as in a criminal case the question might be presented: "Did not the person rather die of an overdose of the antidote than of the poison itself?" and an able lawyer might well argue thus to a jury, and possibly defeat the ends of justice by striving to prove that the doctor, and not the prisoner, had killed the deceased. Further, all vomited matters, as far as possible, should be gathered up and bottled, care being taken that no metal tops or corks are used to stopper the bottles. No matter how small the dose taken may have been, these precautions should be followed, for no one can say definitely, as a general rule, what the *smallest* dose is that will kill, of any given poison. In the case of laudanum, Taylor narrates the case of an infant killed by two drops, equal to one-tenth of a grain of opium, and another in which the same quantity administered to an infant five days old produced death in eighteen hours, although it had even been revived; another in which one minim was followed by fatal results in an infant seven days old, though the smallest fatal dose would seem to be one in which death took place in seven hours, from a dose of paregoric equal to $\frac{1}{15}$ of a grain of opium, the child being four weeks old. On the other hand $7\frac{1}{2}$ grains of opium have been taken without fatal results. For an adult, it is laid down that five grains is a very full dose, though there is a case on record in which four grains of crude opium destroyed life. Of the tincture, two drachms

seems to have been the smallest fatal dose, though it is subsequently stated that one half an ounce may have been the quantity taken. There is one case where even in a five-ounce dose laudanum failed to produce sleep, though whether a tolerance had been established is not stated. This is, of course, an important factor in making up an opinion, for certainly if a man is in the habit of using a drug, it will, all other things being equal, take a larger quantity to produce a poisonous effect than if his system was not thus habituated; thus Beck narrates that the Turks will frequently take, in a glass of water, three or four lozenges, amounting to 100 grains. Orfila makes note of a case in which 24 grains of the acetate of morphia failed of fatal effect, though it produced lock-jaw. In this case 40 ounces of blood were taken from the system with most happy result. Castara narrates a case in which 50 grains of the acetate did not produce death; in this instance, also, bleeding was practiced with great benefit; this case was characterized by a marked itching of the skin during and for a number of days subsequent to the poisoning. Christian lays it down that when opium is taken in the solid form, nearly an hour will elapse before the onslaught of the poisonous symptoms; they *may* come on before, but rarely are they deferred any later. The tincture, according to the same authority, generally produces its effects in about fifteen minutes, though these may make their appearance in a very few minutes. Thus the case I have narrated must have succumbed in about five to ten minutes, for certainly no greater length of time could have been employed in the performance of the different motions that the patient had a distinct recollection of making. Another interesting question is, should a stomach-pump be employed in cases of opium poisoning where the patient has come out from the narcotic effects of the drug. To some this may seem a useless question, but I have known it to be done when individuals were so far recovered as to be able to sit up and talk: and I have known it to produce such a disturbing influence of the system as to result fatally, almost simultaneously with the introduction of the pipe into the stomach. In consequence, I should, in the light of such experience, lay it down as a rule, that it is "a worse than useless procedure to introduce a stomach-pump thus late in a case of opium poisoning." For in a large proportion of cases the system is greatly depressed, and the heart's action irritable, if not indeed weakened by the tremendous strain placed upon it in combating the deleterious effects of the poison. Further, all the immediate harm

has been done that could be done by this poison, and it has all been absorbed, and consequently has left a stomach-pump's sphere of action long before the patient emerges from his narcotic condition, and it can be of but little benefit in warding off any subsequent complications due to the poisoning; the conditions, of course, being different early in the case, before thorough absorption has taken place.

PHLEGMONOUS AND CELLULAR ERYSIPelas.

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An attack of cutaneous erysipelas is so open in its assault and natural course, that no one need be deceived for a moment as to its character, career, and final termination, when uncomplicated.

This certainly cannot be said of the phlegmonous and cellular varieties. At least the cases coming under my notice in two pretty extensive epidemics, and in cases occurring at other times, were more or less deceptive in their onset, and especially so during their career, as to gravity and liability to fatal terminations.

After glancing for a moment at the etiology of *this disease*, we shall refer to the history of a few cases coming under our head. We say "this disease," for they essentially are the same in their etiology, pathology, symptoms, and treatment. "Not only are the local effects precisely the same in the two diseases—the same swelling, tension, infiltration of pus, and formation of gangrenous shreds and sloughs; but the constitutional symptoms, though differing perhaps in degree, present no variety as to character. The results also are identical, there being the same local impairment of structure, the same tendency to involve parts at a distance, and to the formation of secondary abscess. So also, these two diseases occur in the same constitution, in the same states of atmosphere, and in the same situation; one form of disorder may produce the other, and, lastly, the same treatment is required for both affections" (Erichsen). This accords with my clinical experience. I shall, therefore, speak of them as one, though there are minor differences. The causes have well been placed under intrinsic and extrinsic; those that are inherent with the patient, constitutional predisposition, and those conditions of general health that invite an assault by the disease. The extrinsic causes cover habits of life that reduce the powers of resistance to disease. Also those surroundings that, by their

poisonous and devitalizing influence, after any injury has been received, or operation has been done, produce an onset of this form of inflammation.

Relating to the intrinsic etiology of erysipelas, none, perhaps, exert more power for evil than unhygienic environment. Nothing is more common in current and standard medical literature than statements that foul air, impure water, and unwholesome food, have been more or less the direct causes of attacks of infectious diseases of this class, erysipelas among them.

This is so surely the case, and its recognition so general among physicians, that every one who is intelligent seeks for such causes whenever called to a case of the disease in question. Not less is this so of erysipelas than of diphtheria, typhoid fever, etc. "Were the laws of hygiene attended to as they should be, erysipelas and the allied diffuse inflammation would scarcely be met with in surgical practice" (loc cit). We believe the same may be said in reference to sporadic attacks, and not less of those occurring in epidemics. How very common it is in reading reported cases, to see it stated that the local surrounding had given rise to the disease.

We do not forget that personal habits may present a strong etiological front. The intemperate man everywhere, and under all circumstances, is vastly more liable to attacks of erysipelas, than is the abstemious person. If to such habit there is added insufficient or filthy food and foul air, exposure to cold, damp close rooms for a dwelling place, we have all the conditions favorable to develop this and other low forms of specific inflammation.

That there is in some persons an inherent trend to erysipelas, is beyond dispute. This predisposition is often established primarily by anything that breaks down the general health and holds it long below par. The very influences above named are those that will establish this obnoxious tendency. "The habit of body, however, in which erysipelas is most frequently met with as a consequence of very trivial exciting causes, is that which is induced by the habitual use of stimulants to excess," (loc cit). The indigent and necessitous are not alone in this. The wealthy often indulge in excess in eating, luxurious and debilitating habits, which, coupled with sedentary life, or at best, passive exercise, unbalance the constructive and destructive metamorphosis, often leaving too much debris in the system to act as a ready focus to which any specific poison may attach itself and generate disease. The hereditary trend is but small. This is

especially true in my own observation of the subjects of it.

Some diseases and pathological states create a condition favorable to the development of erysipelas. It has long been observed that persons of a "gross plethoric habit of body, with a tendency to gout, are predisposed to the occurrence of erysipelas." I have seen severe erysipelas of the cellular variety set up where old chronic ulcers were the starting cause. Also in some low fevers or epidemic dysentery, there is sometimes a supervention of erysipelas. Under such conditions this accident augurs very unfavorably.

In the subjects of albuminuria and diabetes, the tendency to erysipelas is very strong, so that a very insignificant exciting cause will serve to set it off. These same cases are far more obnoxious to it, and the results far more fatal, than in persons not so affected.

Extrinsic causes have been equally well noted, though there may be some wide differences of opinion as to the real nature of some of these, as may be seen further on.

Some very able authorities state that it occurs most frequently in the vernal and autumnal seasons; that sudden vicissitudes of temperature, especially when connected with an east wind, seem to give rise to it.

In the epidemics met with by the writer, they both occurred at mid winter, January and February. One of them was most severe during long continued extreme cold weather. The other occurred during a mild, open winter. I have met with cases at all seasons, but a less number in summer than during any other season. My limited observation teaches me that an epidemic of it may occur at any time, but is most likely to come on during the cold months. The two last cases met with occurred during the very hot term of the summer of 1881, a summer remarkable for its long-continued high temperature. With this, as with other specific diseases, if it is such, the epidemic is more severe than the sporadic cases. The former are also far more liable to involve the deep tissues and important viscera, and far more liable to follow slight injuries. One of the severest cases, admitting of recovery, I ever met with, had for its starting point a superficial pin prick on the thumb knuckle. Another equally dangerous attack was induced by a very slight abrasion on one of the fingers of the right hand. In this case the sloughing became extensive in spite of the most approved sustaining and antiseptic treatment, and early free incision over the diseased part.

Such attacks rarely occur from slight injuries, unless there is a depraved condition of the blood and debilitated system, or the blood is loaded down with the waste tissue debris that should be eliminated, and at a time when atmospheric conditions favor its development. True, we have sporadic cases; but these are where hygienic conditions strongly favor its development, in a subject whose condition of system is favorable for its reception. What peculiar properties are contained in the atmosphere that favors the development of an epidemic, I believe is not known. That such conditions prevail is beyond dispute.

Erysipelas has been considered contagious. Many believe now that it is so. I am not positively able to dispute their position. It is certainly infectious in all cases where traumatism is present in the persons of those who nurse the disease, or are confined in the same ward where it prevails. It has been long known that surgical operations, however trivial, are dangerous to an extreme degree when erysipelas is present in epidemic form, or in the wards where surgical cases are treated. The open surface offers a free invitation for an attack, and seems to be a fruitful field in which the poison germ may take root and multiply. But that the phlegmonous or cellular varieties of the disease are contagious in the absence of traumatism, I doubt very much. The writer, in twenty years of practice, has never seen more than one case of either form of the disease in the same family at the same time, though the conditions favoring its development were present; and even slight wounds were present in some members of different families, but yet not attacked with the disease. If the disease were contagious in the common acceptation of the term, certainly there would be many instances where it would spread from one person to another, and one family to another, through the atmospheric medium alone. But it seems that contact of the germ with the wound is essential to the production of an attack in surgical wards, as in private practice. Under such circumstances, that air becomes the medium by which the disease germ is conveyed from one case to another, seems to be assured. In such a sense it may be contagious, because of the presence of traumatism and the disease germ producing the local inflammation.

The very nature of malignant erysipelas carries with it an inherent tendency to destruction of tissue and death of the subject. Finding its victim with an impure or depraved state of the blood, and a lowered vitality, it still further de-

presses the power of the nerve centres by poisoning them, and lowering the power of resistance to disease and death. The ability of the absorbent glands to take up the poison seems good and active enough, but their power to resist the absorption of the poison or the onset of disease caused by it, is apparently destroyed. The system or tissues seem to be in a low state of vitality, with an exalted degree of irritability. At the same time there is little power to throw out the needed plastic lymph to limit the progress of the inflammation, but there is a tendency to the rapid formation of pus and of necrosis of the involved tissue. Hence there is rapid and extensive sloughing of the parts, unless quickly relieved. Phlegmonous and cellular erysipelas, then, are those malignant forms of diffusive inflammation, without self-limiting power, and with rapid tendency to necrosis of the cellular tissue, and extensive sloughing—a condition produced by a specific poison, rendered very active by some unknown epidemic or endemic influence, though betimes producing sporadic cases. That a specific poison germ is the active agent seems clear, though it may not be so easy to prove that such is the fact. The liability of persons obnoxious to it to suffer from repeated attacks, argues against the specific nature of the inflammation. Specific diseases, as a rule, occur but once in the same subject.

In symptomatology, either phlegmonous or cellular erysipelas is more or less treacherous and delusive. To the uninitiated it is truly so. If seen when the skin is but slightly reddened in patches, has a mottled appearance, and not attended with much pain, one may easily be misled, unless he should look well to the constitutional symptoms. If such swelling be limited to a joint, it may be mistaken for rheumatism. It is but a short time since I saw a grave case of this malady in the hands of a physician of ten or more years of experience, who had diagnosed it as rheumatism and treated it as such. The subject died in his hands. Again, I have seen the disease involving the whole forearm, with mottled, slightly red skin, and very boggy, yet by the attendant thought to be not serious until evidences of dissolution were fully and inevitably at hand. The symptom of pain is also deceptive. True, it is generally severe, but it may be quite absent, and the patient be fearfully deceived as to the gravity of his disease. Time and again have patients scouted the necessity of the needful heroic surgical measures, when proposed and the gravity of their cases set forth. Often the friends will protest the needlessness of

such a bold use of the knife. But the attendant who has had his eyes fairly opened by the grave results of a few seemingly mild cases, will be in no mood to listen calmly to objections which, if heeded, would send his patient to death with astonishing rapidity.

I have thus spoken of the deceptive nature of the symptoms, because I have met with so many cases where one might be easily led to suppose nothing of a serious character was affecting the patient. Also because I have seen some very respectable practitioners grossly deluded, and beguiled into the belief that there was no danger of a fatal issue. One case seen in consultation but recently, terminated fatally, the attendant doubting the seriousness of the case until the nerve centres were overwhelmed with the poison, and respiration and circulation were rapidly failing.

No doubt such warnings to those practicing in hospitals are needless, as the disease is oftener seen there, and all its characteristics and grave dangers promptly noted. But where men are engaged in civil practice, and go along for years together without meeting with a single case of it, much less an epidemic, such cautious admonitions will be valuable if heeded. With them it is not the great surgical cases that are first attacked, but it is some case where no wound has been inflicted or a very slight one has occurred as the exciting cause of attack.

For diagnosis and prognosis, we refer the reader to the standard works on surgery, where they may get a clear idea of the onset and gravity of the disease.

As to treatment, we prefer to give it as we relate a few cases in practice.

Mr. V, w^r. 58, of spare build, broken down general health, costive habit, nervous temperament, came to me complaining that he had abraded the middle finger of the right hand, and while the slight injury was as nothing, yet there was a red line extending from it to the elbow, which was tender and painful. The finger was a little swollen and tender. The axillary glands were already enlarged and tender to pressure. The accident occurred two days before his visit. Tongue was white, pale, flabby, indented by the teeth : there was a slight elevation of temperature ; pulse 90, weak ; diagnosis, cellular erysipelas.

Prognosis grave. There would be very great prostration, probably considerable sloughing in the axillary region, which it was doubtful whether this broken-down man could endure and live, or if he did outlive it, there would be a

long siege of ill health, with low vitality and slow recuperation.

He was given a mild cathartic and placed upon tr. ferri mur. 3 ss, every three hours, and

R. Quiniae sulph., grs. iv
Ext. nucis vom., grs. j. M.
Ft. pil. ij.

every four hours. Locally to the axilla, he had flaxseed meal poultices, wet with a strong solution of the sulphate of soda. The same also to the wound on the finger.

On the second day all his symptoms were greatly aggravated; the arm swollen a little more; the axillary glands much larger, very tender and painful; pulse rapid, feeble, rigors frequent; tongue furred heavily, and pale; no appetite; some nausea; great prostration generally. There was no boggy sensation, as yet. The treatment was continued with the addition of eggnog and milk punch, oysters, beef essence, etc. He took of some one or more of these every four hours. He also had anodynes sufficient to control pain. In the evening of that day there was slight bogginess in the axilla and down the chest wall for three or four inches. The skin was brawny to a marked degree. Several free incisions were now made, the flesh cutting and creaking under the knife, almost like hard leather. There was but little flow of pus, considerable discharge of thin, watery blood. There was greater prostration and an aggravation of all the symptoms. The tr. ferri. mur. was increased to 3 j every four hours; stimulants and tonics pushed to the utmost he could bear, and nourishment crowded.

On the morning of the third day there was less intense suffering, but greater prostration. The erysipelas had extended down the chest wall to about the tenth rib, and in front quite to the nipple, and posteriorly to near the border of the scapula. There was but little redness of skin over most of this space; almost no tenderness; some pus was oozing from the incisions. There was an expression of feeling better, but very weak. The symptoms in all respects seemed to have ameliorated, except this extension of the swelling, and this, from its want of redness and tenderness, was very deceitful as to its gravity. A little pressure showed it was boggy and the rapid work of destruction was going on, masked behind the quite healthy looking integument. When I proposed the necessity of making a large number of small incisions over this large space there was a strong protest. Counsel was asked for, and as I was requested to name the consultant, I took care to select one whom I knew understood well the nature of the disease. He

was even more emphatic than I was as to the necessity of free incisions and several of them. They were accordingly made at once. There oozed out, even of those made at the lowest point of swelling, an ugly pus, as there did from those higher up. Antiseptic poultices were used as before named, to which carbolic acid was added to about five per cent. Other treatment continued as before.

On the next morning, the whole space above named was in a sphacelated condition, and the swelling had extended anteriorly and posteriorly perhaps two inches; other free incisions were made. Pus was being freely discharged everywhere over the space. The prostration and suffering were very intense. Treatment continued. To make a long story short, no one expected his recovery. All this great slough fell out in a few days, as deep as the cellular tissue extended, leaving a free suppurating surface, to be healed as best it could. The system rallied and the slow process of recovery set in. He was confined to the house for nearly two months, and for four months longer he was only able to walk about and nurse himself. He used every hygienic measure pointing to health, took ferruginous and other tonics abundantly, had the best of diet, and yet he rallied exceedingly slowly and never reached his former strength.

Another case, that of a lady in impaired health, received a slight injury of her right hand, scarcely abrading the skin. She was of sedentary and costive habit, nervous temperament, subject to migrainous headache. The wound was not deep, scarcely worthy of note, and would not have been noticed but for the burning pain that immediately followed its infliction. Three days after receipt of the injury there was a sharp tingling sensation at the site of the injury, which increased to intense pain, tenderness and tamefaction. There were rigors present at short intervals, and very great mental and nervous depression. Pulse rapid and weak, nausea, vomiting, cephalgia. On the fourth day all the symptoms were greatly aggravated, and a red painful line extended up the arm; axillary glands tender, and a small slough at the site of the injury. The hand was swollen and boggy, forearm becoming involved. There was great pain and great systemic prostration. She was placed on tr. ferri mur., 3 ss every four hours; quinia sulph., grs. iv, every four hours; anodynes q. s., and locally antiseptic poultices. Free incisions were advised but rejected repeatedly. The bowels were kept open by enema. The urine was free; temperature ranged from 99-100 $\frac{1}{2}$, was never high.

There was a continued aggravation of the case in all its features and in the extension of the disease up to near the elbow, by the fifth day. The same general plan of treatment had been continued. Stimulants had been added and nourishment crowded. At no time had the swelling been extensive or the skin greatly reddened, except at the site of the wound. Indeed the skin was quite normal in color. For this reason neither she nor her friends could see the need of a free opening. But the pain and prostration increased, as also the bogginess of the hand and forearm; delirium set in. Thorough alarm now caused an accession to my positive demands for operative interference. An incision, long and free, was made in the dorsal surface of the boggy hand, down through the cellular tissue. The incision was four inches long. It discharged pus and blood freely. I preferred several small incisions, but knowing I would never get a second stroke I made the most of the one opportunity. There was an immediate amelioration of the symptoms, and gradual recovery, which, with the exception of a few hysterical complications, was satisfactory. The hand was comparatively useless for some months, but gradually resumed its normal functions.

The exciting cause here was no more than a mere scratch with a pin, and but for the unusually severe pain, the case would have run on untreated, to a perhaps dangerous condition, before the friends would have apprehended the situation. The discoloration was slight and real danger seemed to be absent. Yet there was great danger, from the very poisonous nature of the disease.

Another case was seen during the heated term of the past summer (1881). An old lady had indolent ulcers on her right leg. They were very sluggish. I made a very shallow cruciate incision across the surfaces of them, hoping to cause them to take on better action and heal, at least partly up. Two days later cellular erysipelas set in, and the whole limb to the knee became involved. She was liberally sustained with iron, cinchonidina, nourishment and stimulants. Numerous small incisions were made, to liberate the pus. After a long siege she recovered.

In all three of these cases it will be noted how very small was the injury that excited the trouble. At a time when there is no tendency to erysipelas such wounds go unnoticed, and almost unthought of; but the smallest wound or surgical operation is dangerous when the disease is pre-

valent. The history of many other grave cases might be added, and some also of the phlegmonous type, where no wound was present as the exciting cause. The treatment was the same as above given, in its general plan. So far I have been fortunate enough not to lose any cases of this disease. But I know they are most dangerous, and it has been my good fortune not to have cases that could not be controlled, rather than any marvelous skill of my own. I have seen in counsel such cases in the hands of others that terminated fatally, where the treatment had been after the most approved plan, thoroughly carried out. No one can boast in these cases, for the mildest of them sometimes take on complications that prove rapidly fatal.

Before closing I desire again to call attention to the deceptive nature of the symptoms, and how readily a patient may be allowed to pass on to the very gates of death before any alarm is felt by the practitioner, unless he comprehend well the natural history of the disease in its destructive tendency and liability to overwhelm the vitality by poisoning all the blood, vital organs and nerve centres. This done, stealthily done, and the patient is beyond our power of rescue.

HOSPITAL REPORTS.

UNIVERSITY OF THE CITY OF NEW YORK.

CLINIC OF DISEASES OF THE MIND AND NERVOUS SYSTEM.

BY PROF. WM. A. HAMMOND, M.D.

Reported by H. H. SEELYE.

Cerebral Softening.

CASE 3.—The patient was a German, fifty-eight years of age, powerfully built and healthy looking. He was accompanied by his two sons, from whom the following history was obtained: He had always enjoyed good health up to last fall, except that some years ago he had chills and fever; and four or five years ago he had an attack of rheumatism, and another about two years since. At that time the pain was chiefly in the chest and one arm, which was swollen. The troubles from which he is now suffering date from September 17th, 1880. On the preceding day he had been on a little spree, as was his custom once or twice a month. However, he never became so drunk but that "he could always navigate." On the morning of September 17th, just after getting up, he was leaning against the barn, and talking very excitedly to another man, with whom he was exceedingly angry. Suddenly he felt sick and dizzy. He was immediately assisted into the house and placed upon the sofa. By this time he had nearly lost consciousness, and had only enough sense to tell what had happened. It was then noticed for a moment that

his head was drawn around toward his right shoulder. A spasm of the facial muscles followed, and he then went off into a regular epileptiform convulsion. He had five of these epileptic spasms in succession. For the next two or three weeks he remained sick; and during this time he had to be fed, because he had lost the control of the muscles of the hand, so that he could not find his mouth with his spoon; and he would grasp his fork and other articles upside down. There was, however, slight, if any, paralysis of the right hand. Since then he has been troubled with sleeplessness at night, and some shortness of breath, but has had no more convulsions.

The principal symptoms which he at that time presented are those which he still manifests. These Prof. Hammond endeavored to bring out more vividly, by a personal examination of the patient.

He first asked his name. The reply, after some hesitation was, "Johnny," "Sonny," "I am all over." "I didn't say," "Schordie," "George," and other such unmeaning words and disconnected phrases. When asked where he lived, he would only say, "See over there," "Some over there," and other unintelligible sounds, which could not be called words. His son said that his name was George, and that his home was in Westchester. When asked his son's name, which is John, he answered, "I know, but can't," and so on. Next a question in German was asked, "Schlafen sie wohl?" but this he did not seem to comprehend any better than the rest. When asked if he had any pain in the head, he replied, "I can't." "No." But his son said that he had always before told him that he did have pain there. Whenever the patient tried to speak, his tongue seemed to go automatically, and to be entirely beyond his control. He also seemed scarcely able to appreciate the meaning of what was said. On examining the top of his head a large encysted tumor was found, which his son said had been there for years, but was growing gradually larger. It was caused by a blow from a stick, or club, and so had no connection with the present disease.

The examination being finished, Prof. Hammond now said, that he had first seen the patient two weeks ago at his office. He could then talk little or none; but since that time he had been under treatment, and was now considerably improved. He seems to know people whom he sees, but he cannot tell who they are. His speech is inarticulate, and he cannot remember names. He, therefore, has aphasia, in both its amnesic and ataxic form; and here it is due to the shutting off of the blood from a part of the brain, probably, by an embolus. He has lost the memory of some words, and the ability to pronounce others, especially nouns. But some words he can pronounce, thus showing that there is no paralysis of the tongue. Moreover, he can neither read nor write, and so has ataxia and agraphia; and he probably could not express what he means by gestures, any more rationally than by words.

In reference to such cases as the present, Prof. Hammond continued: There are two varieties of cerebral anæmia, the partial and the general.

Partial cerebral anæmia may be caused by the cutting off of the circulation from a portion of the brain; as by an embolus from a distant part, or by a thrombus formed in one of the cerebral arteries, by the coagulation of the blood at some point where the internal coat of the artery has become roughened. This clot keeps back the blood from the parts of the brain which are normally supplied by the artery, and as a result of the failure of nutrition, softening of the brain substance follows. Or again, rough surgical handling of an aneurism, or an operation on it with an electrical needle, may cause a small portion of the clot to be broken off, and this becoming lodged in some small cerebral artery, may plug it, and thus form an embolus. The most common way for an embolus to form, however, is by the detachment of a heart clot; as the case of this patient illustrates.

Partial cerebral anæmia, due to an embolism, may be ushered in by any of the following symptoms: The patient is perhaps standing quietly, when suddenly he staggers and falls, and, it may be, loses consciousness. He is now, probably, found to be completely paralyzed on the right side, and is also aphasic. This is the worst form, and may be followed by death in two or three days. Or, in another class, a man in perfect health may suddenly lose the faculty of speech, and not be aware of it until he attempts to talk. Again, the only symptom may be a slight paralysis of the hand and arm. The mental phenomena in any of these cases may vary from a temporary derangement of the mind to a profound coma.

Other symptoms may follow the first attack. The patient does not recover, but after three or four days he is still found to remain paralyzed and aphasic. He may continue thus, or with slight improvement, for weeks or months, and then a second attack may occur, by reason of the detachment of another clot from the heart; and in this or subsequent attacks the shock and mental disturbance will be so great, as to cause a coma which will become constantly deeper, until terminated by death. If the embolus be quite small, only slight symptoms may follow, from which the patient will in time recover.

When the physician is first summoned to a case presenting any of the above conditions, his first duty is to inquire into the antecedent circumstances and history of the patient. For, in the first stage, it is sometimes very difficult to distinguish this from cerebral hemorrhage. But the clinical history will decide this point. If there have been previous attacks of rheumatism or heart disease, this should arouse suspicions of embolism.

The connection between rheumatism and cerebral embolism is this: Rheumatism is a disease which tends to affect the fibrous tissues of the body. The internal lining membrane of the heart is one of these. When this becomes affected its surface roughens, and then the fibrin becomes detached from the blood as it passes through the heart, and small clots are thus formed on the walls, chordæ tendineæ, or valves. The fibrin is here separated from the blood, in the same way as it is done outside of the body when it is whipped with wisps of a broom. The heart

clots thus formed may vary in size from a mustard seed to that of a large pea. If one of these from any cause becomes detached, it passes along in the circulation, and may finally be stopped in some small artery of the brain, and there form an embolus, which will give rise to any of the symptoms already described.

A patient first seen in one of these attacks presents a striking condition, and one about which little was known until within the last twenty years; and even now, the profession generally appears to know but little about it. These attacks were often called apoplexy, and whenever there was paralysis due to cerebral disease, but with no loss of consciousness, it was called a paralytic stroke. Nothing of the relation of these cases to rheumatism and heart disease was then known. But even now it is sometimes quite impossible to diagnose this from cerebral hemorrhage; for a man may have an embolus without a previous history of rheumatism or heart disease; and again, he may have such a history and still have an apoplexy, and not an embolism. But though the character of the disease cannot certainly be determined in the first stage, yet as it advances other elements appear which will settle the diagnosis. If it is cerebral hemorrhage, there will soon be developed contractions in the paralyzed muscles, especially in the hand and arm. The hand will be turned inward, and the forearm semiflexed on the arm, and held across the chest as if supported in a sling; and the legs will become stiffened and have a peculiar swing in walking. In these cases, also, the paralysis is usually confined to the right side, and is accompanied by unconsciousness at the onset of the attack.

The remote cause of the disease is generally rheumatism, but the exciting causes are various. It may be rage, as in the present case. An embolus might not become detached for many years, if there were no exciting cause. Anything that increases the force of the blood current, or excites the heart, may bring on an attack. Such as a blow on the chest from a fist, or any strong muscular exertion, such as wrestling, lifting heavy weights, straining at stool, or the efforts of child-birth, and even the act of stooping down, as in lacing a shoe. However, any of these same causes may also excite cerebral hemorrhage, because they increase the blood tension in the vessels of the head, and so lead to their rupture.

We now come to the rationale of this condition. It will be noticed that paralysis, if present, is almost invariably on the right side only, and that it is accompanied by aphasia. The location of the lesion is, therefore, in the left hemisphere of the brain. This is easily explained when we consider the arrangement of the arteries, as they are given off from the arch of the aorta.

It will be seen by this diagram, that as the current of blood passes out of the heart, carrying with it a detached clot, it rushes by the coronary arteries, which are now closed by the auricular valves, and the embolus is driven along the upper curve of the aorta, and passes by the innominate artery, the opening of which is in such a direction, as not to be likely to stop and draw in the clot. When, however, it reaches

the left common carotid, which opens into the aorta at nearly a right angle, the current tends to rush directly into this, and the clot is stopped before it can get by, and is drawn in. It now tends to follow the most direct course, and so passes by the external carotid, which leaves the bifurcation of the common carotid at a slight angle, and flowing up the internal carotid, it goes as far as possible without obstructing a vessel. If the clot is very large it may plug the common carotid, but if not, its most direct and natural course is toward the middle cerebral artery. Here it may be stopped at the junction of the two arteries, or it may pass on into the middle cerebral, or if not too large, into one of its smaller branches, and there form an embolus. The severity of the symptoms following will depend principally upon the size of the vessel which becomes thus plugged. The blood is in this way shut off from that part of the brain which is supplied by the obstructed artery, and its tissues become softened and degenerated, and break down, and is destroyed. This is the commonest cause of softening of the brain. If only a very small vessel is plugged, loss of speech may be the only symptom.

Thus Rousseau mentions the case of his colleague, who was reading, and when he for some reason attempted to call his servant, he unexpectedly found that he could not speak a word. But it rarely occurs that there are not other symptoms, besides aphasia. However, if speech alone is lost, the seat of the obstruction and the part of the brain involved can be determined quite definitely. The location of the centre which controls the faculty of speech is now known with considerable certainty. It was formerly supposed to be situated in the posterior part of the third frontal convolution, but recent investigations tend to show that it also includes the island of Reil, and probably the anterior part of the temporal lobe. It is almost universally located in the left hemisphere of the brain. There seems to be in most individuals a predilection to use the right hand principally, and this preference appears to be inborn. But aphasia, due to a lesion on the right side of the brain, is proportionally about as frequent as to find left-handed people. This indicates that the left hemisphere is exercised more constantly than the right. Accordingly, we find the left side of the brain larger, and better supplied with blood, and developed earlier in life, and having the advantage generally over the right. This increased nutrition of the left hemisphere predisposes to a more constant use of the muscles of the right side of the body. But in men who use the left hand in preference to the right, the right side of the brain is found to be the better developed. So if a left-handed man should have an embolus in the right middle cerebral artery, he would still be aphasic, because the centre of speech in him would be located on the right side.

The patient here to-day has aphasia, with only slight paralysis of the right hand. The mildness of the symptoms shows that he has only a small embolus probably, which plugs the arterial branch going to the speech tract on the left side. There are two varieties of aphasia. In one, the amnesia, the patient loses the memory of words,

and consequently cannot express himself, though he may know what he wants to say. In the other, or ataxic variety, he knows what words he wishes to use, but cannot pronounce them, because of his inability to coördinate the movements of his tongue; and the result of his efforts is a confused mixture of unintelligible and disconnected words.

There has been much discussion as to the way in which improvement, or recovery of speech, takes place in these cases. It is probably by one of two means. Either the collateral circulation is restored, by means of anastomosing capillaries, or some other part of the brain assumes the functions of the diseased portion. Some observers deny the possibility of there being any collateral circulation, for they say the arteries of the brain do not anastomose, except by the circle of Willis. But for us clinical experience should be more of a guide than speculations. We know that patients do slowly recover their speech; and if there is no nutrition of the part of the brain where the speech centre is located, there will be death of the tissue of this part, and consequently no speech. There is no good authority for believing that there can be a vicarious action of one part of the brain for another; yet many believe this to be the solution of the difficulty. The truth is, probably, that the part is nourished by a collateral circulation. This is probably the cause of the improvement in the patient before us. There is a theory that the embolus undergoes fatty degeneration and finally becomes absorbed, and thus the obstruction in the circulation is removed, and the diseased portion becomes revitalized. This is possible, but doubtful.

Treatment.—All patients of this class, if they recover from the first attack, and do not die from coma, should be treated as this man is now being. The indication is, to improve the nutrition of the brain. There are some things which are thought to do this. Blisters are sometimes applied to the head, but this is absurd. Blistering cannot open a plugged vessel, and thus restore the circulation. Yet not long ago a patient in this condition was seen by me, and the attending physician had administered large doses of iodide of potassium, and applied blisters to the head; but neither of these means are of any use. They may draw the blood to that portion of the head until it meets the obstruction, but it must be remembered that the anaemia is beyond the clot, and in front of it there is already congestion, which is thus being increased, and so doing more harm than good. The one great and grand thing to do when a patient is seen in the first stage of the attack is, to *let him alone*. Merely keep the head slightly elevated and cool, and there stop. Later on, after the active symptoms of irritation, such as muscular twitchings and convulsions, and the general prostration, have passed off, then the head should be kept warm, at an equable temperature, but not hot, so as to facilitate the flow of blood to the part. Otherwise simply carry out whatever indications may arise, such as drawing off the water, if the bladder is paralyzed, or administering a cathartic, if there is obstinate constipation. The diet should be nourishing and simple, and the habits regular. But if the strength continues to fail, and there appear symp-

toms of heart weakness, the question as to whether stimulants should be given then arises. When such a crisis comes there is only one thing to do. Alcoholic stimulants must be administered carefully, in small and repeated doses, and the effect closely watched. So the patient should be tided over the dangerous period, until the vessels can recover their normal relations. But after all active symptoms have disappeared, something should be done in the way of trying to improve the nutrition and power of the brain. Strychnia and phosphorus seem to have such an influence. One-tenth of a grain of phosphate of zinc and one-third of a grain of *nux vomica* may be given at a dose. The following is the usual formula:—

R. *Zinci phosphatis*, gr. iiij
Ext. *nucis vomicae*, gr. x. M.
Fiat pilulae xxx.
Sig.—One pill three times a day.

This has been the treatment of the present patient for the past two weeks, and as he seems to be improving, it will be continued.

In cases where there is still some paralysis, galvanism, or electricity in some other form, should be applied to the affected muscles, and at the same time they should be exercised by passive motion, rubbing, hot application, and so forth. If, in the first stage, the patient feels chilly, or cold, from the shock, the temperature of the body may be kept up by hot applications or other means.

Much may be effected in trying to reteach these patients to talk, by repeating to them often those nouns and names which they seem especially to have forgotten. They usually forget the names of persons, and of the commonest things; as this patient illustrates. When a watch is shown him he calls it a "ring post," a "boot," and "newsboys." A pencil he calls a "caperie." A hat is "John," and so on. Now, if you try to make these people talk, by patiently teaching them to use the commonest words, mostly names of things, in a short time they will be found to have a vocabulary which will be very serviceable to them. An example of this fact is that of a lady patient of mine, who when I first saw her could only repeat over and over one single phrase, but after six months of education, she could use correctly three or four hundred words. This is quite a gain, when we consider that most of us, in our ordinary conversation, probably make use of only about one thousand different words in a year. This man should be taught in this way, for some time each day, and he will probably continue to improve in his talking, as he has done within the past two weeks.

Notes on Case 3.—The review of this case suggests the thought: How is it, that the faculty of speech is sometimes restored after aphasia has once existed? In answering this, the question arises, as to whether the so-called speech centre is really the source from which impulses are carried directly to the organs of speech, or whether the true source is not in the corpus striatum beneath, to which impulses are transmitted from the cortex. Experiments seem to point rather to this latter being the true condition. The gray matter of the cortex is then thought to have

rather an intellectual function, and merely originates ideas, and then stimulates the special centre beneath to carry them out. Now, if this be the case, we must search here, in the corpus striatum for the source of both amnesic and ataxic aphasia, which occur when the speech area is injured or destroyed.

If the gray substance of the convolutions in the speech region is the source of the intellectual ideas relating to the memory of words, it is evident that obliteration of this portion will be followed by forgetfulness of what words to use in order to express ideas which may have originated in some other portion of the cortex. So we find that amnesic patients have ideas about things which they cannot remember words to express.

But when we come to explain the cause of ataxic aphasia unaccompanied by the amnesic variety, we must bring in another element, the existence of which experiments have apparently demonstrated, namely, that there appear to be so-called sensory areas in the brain, which, if affected, interfere with or modify impressions which are normally transmitted to the brain by the sensory nerves, or which originate in the mind itself. Thus there appear to be visual, auditory, tactile, and other sensory areas or centres. And if the visual centre, for instance, were destroyed, though impressions would still be carried through the uninjured optic nerve, yet there would be no consciousness of a perception in the intellectual portion of the brain.

In a similar way, the inability of the perceptive portion of the cerebrum to determine in what condition of contraction or relaxation any of the muscles of the body are without the aid of other senses, will account for the lack of co-ordinating power over these muscles when the tactile centres are involved in the disease. So in the ataxic aphasia, the inability to control the movements of the tongue may be due to partial or complete paralysis, and hence blunting of the sensibility of the tactile nerve centre of the brain which receives impressions from the muscular fibres of the tongue; and this prevents the patient from knowing in just what condition of contraction the muscles of the tongue are at any given moment. So that if he starts to speak and puts his tongue into position to pronounce the first syllable of a word or sentence, when he wishes to change its position, so as to pronounce the second and following syllables, it moves about automatically, and is most likely to pronounce those words to which it has become most accustomed. This action is similar to that seen in the walk of a drunken man, or one afflicted with locomotor ataxia, who may not be able to coördinate the muscles of his legs, simply because the muscular sense, or tactile sensibility of his legs and feet, is blunted, so that he does not know, from the impression made upon the terminal nerves, in what condition of contraction his muscles are. And if he attempts to walk without the aid of his eyes to help him determine the position of his limbs, he will stagger about and put his legs into as indefinite and peculiar positions as the man with ataxic aphasia will his tongue in pronouncing unmeaning and disconnected syllables.

So we conclude, that where there is ataxic

aphasia, the destruction of brain tissue from disease has involved the tactile area for the tongue, which is probably located in some portion of the speech area. It is thus easy to see how both forms of aphasia may be present simultaneously, if the disease be so extensive as to involve the whole of the region of speech.

We are now prepared to consider how it is possible for speech to be partially and gradually restored in these cases. There can be found objections to every hypothesis heretofore advanced to account for this. It seems, however, that the following explanation has something, at least, to recommend it.

We have seen that the lesion is generally on the left side only of the brain, while the other side is still intact. Now because we have found that the "centre of Broca" on the left side is principally concerned in speaking, it does not follow that the same centre on the right side has not also been partially educated to assist the left, any more than the fact that the education of the motor area for the right hand and arm has been carried on to the total neglect of the corresponding area of the opposite side. And we know that when a man has lost the use of his right hand and arm, from paralysis or other cause, he can educate the left hand, so that it may ultimately become as skillful as the right. So it appears at least possible that the partially educated speech area on the right side of the cerebrum may gradually be educated to assume the functions hitherto performed by the left side. The fact that after a paralytic shock causing aphasia the patient still has an awkward and blundering use of words, though the left speech centre may be utterly destroyed, seems to point to the probability that the right side is attempting to perform the duties of the left, to which it is as yet unaccustomed. And just as a child may be slowly educated to talk, so these patients, by faithful teaching, will gradually regain the use of language.

An objection to supposing that the left area is gradually restored by a collateral circulation, and thus at last reassumes its accustomed function, is the fact that when an embolus or thrombus forms in an artery there is a stasis of blood throughout the whole neighborhood of that artery, in the vessels supplied by it. And this stasis causes the coagulation of the blood and the extension of the clot throughout all these branches. Thus the arterioles become clogged, and they finally degenerate into mere cords, just as is the case where a ligature is tied around a small artery. Now these impervious cords can never again allow blood to circulate through them, and so it is difficult to conceive how there can be any collateral circulation where there is no means for the blood to pass into the diseased part. Furthermore, this view seems to be strengthened by the fact that, on post-mortem examination, the brain substance of this part is found to be softened, broken down, and frequently destroyed completely.

For these reasons, it seems more probable that the speech centre on the right side assumes the duties heretofore performed by the left. So it follows that efforts at education may be made, with hopes of gradually restoring the lost faculty.

EDITORIAL DEPARTMENT.

PERISCOPE.

Localized Cerebral Lesions.

From the study of twelve cases of localized cerebral disease which he has published during the last four years, Dr. E. C. Seguin, in the *Journal of Nervous and Mental Disease*, for July, 1881, draws the following conclusions:—

1. The motor area of the cerebral cortex and allied white substance extends anteriorly as far as the lower half of the second and first frontal gyri, and posteriorly as far as the anterior part of the interparietal fissure.

2. The region lying between the limits indicated above, the middle regions of the hemisphere, on its convexity and (to a certain extent) on its median surface, including the posterior parts of the first and second, the whole of the third, frontal gyri, the whole of the ascending frontal and ascending parietal gyri, with their terminations in the longitudinal fissures known as the paracentral lobule, with probably the upper parietal lobe—all these cortical parts, with their associated segments or fasciculi of white-matter, have strong motor functions, being in direct relation with the muscles of the face, tongue, arm, and leg.

The former of these statements is supported by three, the latter by the remaining nine of the twelve cases reported.

Included under the latter general statement a further and more elaborate induction is permissible:—

a. The lower part of the third frontal gyrus is intimately connected with the organs of speech (and the function of language).

b. The middle parts of the ascending frontal and ascending parietal gyri are directly connected with the arm of the opposite side.

c. The upper or posterior part of the ascending frontal and ascending parietal gyri, and the paracentral lobule (also the upper parietal lobule ?), are directly connected with the lower and upper extremities of the opposite side, and perhaps more closely with the leg.

A Case of Lupus Exedens Successfully Treated by Creasote and Calomel.

The following case is reported in the *Medical Annals* for Sept., 1881, by Dr. Clinton B. Herrick:—

P. S., aged 65, was admitted into the Albany Hospital (service of Dr. A. Van Derveer), October 21, 1880, with the following history: No trace of disease of ulcerative nature in family. About fifteen years previous patient first noticed a small wart, about the size of the head of a pin, in front of left ear, which remained about the same for a period of five years. Then it began to get a little sore, and if scratched would bleed, a scab forming afterwards. He also noticed then that a small ulcer was progressing, which increased and spread downward, and then toward

his eye, the ulcer healing and crusting over in its track. The character of the sore was, in form, irregular, without discharge, up to this time, and painless, being accompanied, however, with an intense itching sensation, so great sometimes that the patient could scarcely control himself. The disease advanced, surrounded the eye, implicated the lids, and crept on over the left side of the nose, down to the alae, and a portion on the right side. About three months before coming into hospital the ulcer began to discharge a thin, purulent matter, very profusely, so as to require, at times, redressing every hour or less. When admitted, the disease covered almost entirely the upper half of left side of face. At first, creasote alone was applied, then the di-chloroacetic acid was used with some benefit. Then applications were made of creasote and calomel, and from the first use of it the ulcer began to improve. The method of using it was to take a camel's hair pencil, dip it first in the creasote, then in dry powder of calomel, applying it to the edges and where depressions existed, the brush with a twirling motion dislodging and removing the cells. By this treatment, the surface glazed over with healthy skin, its size diminished, and at present there only remains a small portion of the disease over the eyelids, without any indications of its returning or spreading again.

On the Antiseptic Treatment of the Zymotic Diseases.

Dr. A. D. Macdonald writes, in the *Dublin Medical Journal*:—

When attending the lectures of the learned professor of the practice of physic in Edinburgh University, it struck me that antiseptic treatment was the true and rational corollary to the highly probable germ theory of infectious disease. Granted the germ theory to be true, it seemed to me to follow as naturally in medicine as in surgery that the proper course to adopt was to kill the germs, or, if that be impossible without serious results to the patient, at all events to lower their vitality. In the *Journal* for June I briefly referred to the administration of carbolic acid in whooping cough. Since writing I have had the opportunity of giving carbolic acid in six cases of scarlatina. Fully two months ago I had tried it in a solitary case.

The sulpho-carbolates used to be given in Edinburgh, but, unfortunately, they have fallen into neglect. Recently a German physician has treated typhoid fever antiseptically with good results, and equally favorable has been the subcutaneous injection of solution of benzoate of soda in yellow fever, where the multiplication of germs in the blood has been demonstrated to occur, thus adding another factor to the induction proving the germ theory.

As yet I have not felt quite confident enough to quit the apron strings of Mindererus, but have given the glycerine of carbolic acid in combination. Six cases have been so treated thus far:—

two with copious rash and pretty severe sore throat. The dose given was one minim of the acid every four hours in one of the two, a young man of 19; a quarter to half a minim in the other cases, children. All have done perfectly well.

Now, what I have said by no means proves that carbolic acid is a remedy for scarlatina; long experience and strict investigation alone will do that, but, theoretically, it is good, and practically, I have shown that carbolic acid may be safely given to scarlatinal patients. Thus, there is a starting point for further research. There is the fact to help us in selecting this as the scarlatinal antiseptic, that it has proved of some benefit in the, in some respects, analogous general exfoliative dermatitis. The variety of germs must necessarily be as great as that of the zymotics themselves, but there is also a variety of antiseptics as great as the variety of germs. We carefully attempt to destroy the germs in the air of the sick room and discharges of patients, by disinfectants. Why not also thus attempt their destruction in the body of the patient?

Erysipelas and Puerperal Fever.

As bearing upon the question of identity of the above mentioned two diseases, Dr. Frank H. Rowe, of Cumminsville, O., writes to the *Obstetric Gazette*, for September, 1881:—

I was engaged to attend Mrs. L., in confinement, when about six months pregnant. Escaping most, if not all, the natural illness incident to her condition; I did not see her until her labor had somewhat advanced, very nearly to the close of the first stage. I had been telephoned for the previous day, but being unavoidably detained by a case, my friend, Dr. Isaac Miller, responded for me; supposing, as I did, naturally, that her labor had commenced and that she would require immediate attention, as her full time, according to her careful calculation, had already expired at least two weeks. I was notified by Dr. Miller as to her condition, stating that it was a case of erysipelas, for which he prescribed, and left with the understanding that I would call the following day, which I did, and found my patient as before stated. In regard to her labor, it was completed naturally in a short time: but as to her general condition, she was naturally of a scrofulous habit, a fact with which she herself was well acquainted, as well as her friends, as the evidences were very plainly manifest. I found her at the time of labor suffering from severe facial erysipelas; features much swollen; eyes closed almost entirely; ears almost double the natural size; skin very red, tense and burning, edematous and shiny in appearance, extending over the scalp. Associated with these local symptoms, were the usual constitutional disturbances incident thereto, such as high fever, headache, etc. I would add that her lying-in was unattended with an unfavorable symptom; it followed a normal course. As for the erysipelas, it seemed as independent as the parturition, following the natural course of the disease, although several weeks elapsed before desquamation had ceased. The lady is now in excellent health, and in much better condition than for a long time.

The Nature of Snake Poisons.

M. Gautier read before the Academy of Medicine, at the *réunion* of July 26 last, an account of his researches into the nature of snake poisons, especially that of the cobra (*Naja tripudians*). He has succeeded in isolating them, and finds them to have nothing in common with ferments, but to be chemical bodies of definite composition and considerable stability, acting with an energy proportioned to the quantity employed; and but slightly impaired by subjection to a temperature of 125° C. (258° Fahr.) for several hours. Having dissolved a milligram of the poison in several drops of water, he inoculated rabbits and birds, who invariably died in a few minutes, the heart remaining in systole and muscular contractility being abolished. He then employed like doses, but mixed with various reputed alexipharmacics, for half an hour to an hour before injection. Perchloride of iron and essential oils of thyme, mint, etc., he found to be quite inert. Tannin, nitrate of silver, and liquid ammonia delayed but did not avert the fatal termination. The alkaline carbonates were also useless. But—and here lies the great interest of his experiments—although the poison seems to be of the nature of an alkaloid, it has in its crude state an acid reaction, and a quantity of caustic potash or soda just sufficient to neutralize this acidity rendered it absolutely inert. He also verified the fact that the poison may be taken into the digestive canal with impunity. Subsequent neutralization of the alkali with an acid did not restore the energy of the poison, which would seem to point to decomposition rather than mere neutralization by the potash. He failed to prevent death by subcutaneous injection of alkaline solutions, but he has certainly opened a new path for further experiment, which may lead to great results.

Parotitis as a Complication of Ovariectomy.

Dr. Mörckie, in a communication to the *Zeitschrift für Geburtshilfe und Gynäkologie*, narrates five cases in which inflammation of the parotid gland followed ovariectomy, and in four of them went on to suppuration. He refers to the well-known connection between inflammation of the testis and of the parotid gland, and quotes cases from other authors in which affections of the female genitals—swelling of the labia, vulvo-vaginal catarrh, swelling and pain in the breasts, swelling and pain of the ovary—came on in the course of mumps. He thinks these instances point to a connection between the parotid gland and the ovary, similar to that which exists between the parotid gland and the testicle. In support of this view he further states that he has never seen parotitis follow any other operation on the female genitals, although the operations of this kind which he has done far exceed in number his ovariectomies. In one of his cases there was the possible source of fallacy, that some children suffering from mumps were in the hospital at the time, and a nurse caught the disease. But the ovariectomy case was kept separate from the other patients, had her special nurse, and no other patient in the hospital caught the disease. The criticism that parotitis is not uncommon in the course of the acute infectious diseases (ty-

thus, scarlatina, etc.), and in pyæmia, he anticipates by saying that his patients were not suffering from any of these diseases; nor was the inflammation so acute or so dangerous as is the pyæmic form. In time of occurrence and in frequency it closely resembled the orchitis which complicates mumps. The parotitis came on five times out of 200 cases of ovariotomy, and began from the third to the seventh day after the operation. Orchitis in mumps is said to occur once in sixty cases, and to come on, as a rule, about the sixth day.

Quinine Enemata.

In a lecture on the treatment of malarial fever, published in the *Detroit Lancet*, for October, 1881, Dr. Alonzo Clark, of New York, first draws attention to the quantity of adulterated quinine in the market, rendering it often necessary to administer it in enormous doses. With regard to the methods of administration, he observes:—

I have not become a lover of the hypodermic injection of quinine, for it so very generally has made sores in instances where I have seen it used. If the druggist can prepare it in such a way that there will be no irritation, I would be less inclined to object to it; but I know it is effectually administered by injection into the bowel, and given in this manner it acts, at least, in an innocent way. But it must be given in large doses to be effective. The doses that were employed four or five years ago would seem only to inflame the fever and not to reduce the temperature. It must be used in ten grain doses, three times a day, and you will find that injecting it into the bowel will be just as efficacious as if it were taken by the mouth. The old account of the matter was that a double dose should be given when the medicine should be administered by injection. I do not think so, and I feel quite sure that I can make five or ten grains of quinine, properly dissolved, do just as much for the general system, when injected into the bowel as if it were taken into the stomach. It may not be true of a large circle of medicines, but I am confident that it is of this.

Hospital Treatment of the Insane.

Dr. H. Grimshaw says, in the *Lancet*:

It is all important, I believe, in incipient cases of mental attack, promptly to remove the patient from injurious surroundings; but it by no means follows that a mind trembling in the balance should at once be consigned to an asylum, and so, in reality, it practically comes to this, that dangerous delays occur, and too often disastrous consequences ensue, from crass ignorance how best to act.

Out door treatment might be probationary on the one hand, for incipient cases, experimental on the other, after prolonged seizures, and would be a great boon to many chronic sufferers who, though indubitably insane, are really harmless, and quite capable of enjoying life in a well-regulated and cheerful home.

In cases of a somewhat questionable nature I have found it convenient to try residence in apartments only, at the outset, with an attend-

ant; and then, when society and companionship were deemed desirable, to take the patient into my own house.

Some twenty years ago, I remember, an eminent physician wrote a series of papers in the medical journals very strongly advocating the establishment of Maisons de Santé, where supervision could be exercised without entailing loss of liberty, or the pains, penalties and vexatious formulaires following in the wake of lunacy certificates; for, as matters now stand, the patient must be either dubbed insane at the outset or run the risk of continuous out-door treatment by a practitioner whose general line of work hardly fits him for the undertaking, if his professional engagements would allow of it.

A New Method of Treating Subcutaneous Nevı.

Dr. C. Coombs gives this case in the *Lancet*:

About a year ago, a child aged nine months was brought to me with a nevus about three-quarters of an inch in diameter, filling up the fossa on the left side of the nose. The swelling was entirely subcutaneous, and it was evident that none of the applications which cure the superficial form of the disease would be of any use. The gold needle usually employed in such cases was connected with a battery and introduced into the tumor, but the restlessness of the child (his eye being endangered) made me abandon it. Two lengths of No. 24 silver wire were then passed through the middle of the swelling, parallel to each other, and about a quarter of an inch apart. The zinc and carbon of a Bunsen cell (quart size) was then connected with the ends of each wire separately. The result was great heat in the wire during the short period, one or two seconds, of connection. The ends of the wires were then tightly twisted together, protected by being covered with lint and plaster, and left for the next application, which took place a week later. The current was applied three times altogether. The wires were removed after the third galvanization, and no further treatment was needed. The nevus is now scarcely perceptible.

This mode of using the galvanic current in the deeper nevi appears to me to be recommended by its simplicity and freedom from danger. There is less pain than is caused by the usual introduction of needles at each operation, and a single cell (bichromate, Grove's, or Bunsen's) is sufficient, the only resistance being the fine silver wire.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—In a reprint from the *American Journal of Medical Science*, Dr. Edward T. Reichert, gives a summary of fifty-six cases of poisoning by carbolic acid, with a study of its physiological action. His results are quite instructive to toxicologists.

—A physician of Buffalo, Dr. Rollin R.

Gregg, has attacked, what he calls "the great bacteria fallacy," maintaining that the so-called micrococci in the diphtheritic membrane are in reality granules, fibrils and spirals of fibrin. It appears that he has written a book on the subject, which, however, we have not seen. From some expressions in the reprints sent us, we judge him to be of one of the "independent" schools of medicine. At any rate, his views deserve consideration.

—The *North American Review* maintains its high level of excellence and variety in its articles. Its contributors are always among writers of original merit, or at least among those popularly supposed to be profoundly learned in their particular branches, and the conflicts of opinion which the *Review* covets, are entertaining and instructive in the sense that they show how little after all is really known on any topic.

BOOK NOTICES.

Transactions of the Louisiana State Medical Society, New Orleans, 1881.

We should at an earlier date have spoken of the *Transactions of the Louisiana State Medical Society*, but as they are bound up with the regular issue of the *New Orleans Medical and Surgical Journal*, they are apt to be lost sight of in the great stream of periodical literature.

The address of the President, Dr. C. M. Smith, was upon epidemics, and we are gratified to see that it was decided in advocacy of quarantine to the National Board of Health. He said:—

I claim then that quarantine was the barrier which stayed the ingress of yellow fever into the United States during the war, and, if quarantine can prescribe limits to one, it can exclude all diseases from the country that are of foreign origin.

Has not the history of quarantine during the last four years proved that the establishment of the National Board was not only a necessity, but that it is the only authority capable of acting as an arbiter between different States and communities, where there are doubtful or conflicting opinions regarding the necessity of enforcing quarantine restrictions? Its coöperation with State Boards must be entirely harmonious and devoid of conflict, as without this a thorough, safe, and just quarantine will be impossible.

Dr. Stanford E. Chaille read a full report on State Medicine, as applied to Louisiana. Dr. J. C. Egan, of Shreveport, described the occurrence of Urinary Calculus in Northern Louisiana, where it appears to occur very rarely. The article by Dr. Richard H. Day, on the treatment of yellow fever, is positive in its directions, and the result of matured observation. It will be presented in the next number of the *Half Yearly Compendium*, so as to insure it a wider

circulation. Dr. M. Schuppert's article on tuberculosis is rather fanciful, and altogether too sanguine. He seems to have caught the *spes phthisica*. A case of retention of menstruation, with regurgitation in the left fallopian tube, is reported by Dr. E. S. Lewis, of New Orleans.

Transactions of the American Gynaecological Society. Vol. 5. For the year 1880. Boston: Houghton, Mifflin & Co. 1 vol. 8vo. Cloth, gilt, uncut. pp. 470. Price \$5.00.

The gynecologists must have caught the passion of their patients for sumptuous attire and elegant externals, by the choice appearance of their *Transactions*. It is not often that a scientific volume comes to our table printed on such paper and so artistically manufactured. The articles in the volume are, however, quite worthy of the frame in which they are set. There is no one which does not show signs of careful preparation, and the subjects form a judicious mixture of practical and theoretical gynecology.

The annual address was by Dr. J. Marion Sims, its topic being the growth of the Society and its specialty. Of the other papers we name one on Battey's operation, by Dr. Battey himself; on displacement of the ovary, by Dr. Geo. J. Engelmann; an ethnological study on posture in labor, by the same; the extirpation of an encephaloid kidney, by Dr. W. H. Bifford; uterine massage, by Dr. A. Reeves Jackson; epilepsy cured by trachelorrhaphy, by Dr. R. S. Sutton; secondary puerperal metrorrhagia, by Dr. Theo. Parvin; the hot rectal douche, by Dr. J. R. Chadwick; laparotomy, by Dr. C. D. Palmer; manual dilatation of the os, by Dr. W. R. Richardson; occlusion of the uterus, by Dr. J. A. Eve; ovariotomy during pregnancy, by Dr. H. P. C. Wilson; and rupture of the uterus, by Dr. W. P. Howard.

It will be seen from this how varied is the entertainment, and we are sure the gynecological reader will find the volume a valuable addition to his library.

Transactions of the Medical Association of the State of Mississippi at its twenty-fourth Annual Session, held at Mexico, Mo., May 17th, 18th, and 19th, 1881. St. Louis: J. H. Chambers & Co., Printers, 405 North Third street. pp. 194.

The President's address, by Dr. J. Mallen, of Liberty, was on "The Need for Thorough Medical Training and Teaching, and the Importance of Local Medical Organizations." Numerous Essays on various subjects were also read, among which we mention "Gastrotomy," by Dr. Frank J. Lutz, of St. Louis; "Fever and the Cooling Bath," by Dr. Willis P. King, of Sedalia; "Connection between Asthma and Nasal Poly-
pi," by Dr. C. A. Todd, of St. Louis; "Spon-

taneous Version and Involution in a Shoulder-arm Presentation," by Dr. W. H. Lee, of Mexico; "Hygiene," by Dr. Garland Hurt, of St. Louis; "Mutual Relations of the General Practitioner and the Specialist," by Dr. Wm. Dickinson, of St. Louis, and others. These were all followed by lengthy discussions, in which most of the members present took part.

Eczema and its Management; a Practical Treatise based on the study of two thousand five hundred cases of the disease. By L. Duncan Bulkley, A.M., M.D., Attending Physician for Skin and Venereal Diseases at the New York Hospital, Out-patient Department, etc., etc. New York: G. P. Putnam's Sons, 27 and 29 West 23d street. 1881. Cloth, 8vo. pp. 344. Price \$3.00.

There is no department in medicine the study of which is so neglected by the general practitioner, as that of dermatology, and few physicians, indeed, attempt to treat affections of the skin with anything like the same clear understanding of what they are trying to accomplish, as guides them in the management of other diseases, the majority relying on a few fixed formulæ, and when these fail, the case is either abandoned or sent to a specialist; yet few diseases require a more thorough knowledge on the part of the physician, both as regards pathology and therapeutics, than those of the skin, and, as the author remarks, "Eczema has been rightly called the keystone of dermatology, and he who masters its management is not only skilled in regard to treating the most common and distressing of all cutaneous diseases, but has acquired a knowledge of the principles of dermatological practice which will assist in the treatment of very many, if not all, other maladies of the skin." As editor of the *Archives of Dermatology*, as well as author and translator of various other works on the skin and its diseases, the author is well known to the medical profession, and as a specialist he has had rare opportunities for observation. The work before us is, as the author remarks in his preface, a personal one, representing his own views and experience in the management of eczema, as it occurs both in private and hospital or dispensary practice. A little more than one-third of the volume is taken up in describing, defining and classifying the disease, showing its frequency compared with other cutaneous diseases, and other statistics, bearing on age, sex and conditions in life, which favor its development, duration of the disease, symptoms and pathological anatomy, forms under which it appears, diagnosis and prognosis, together with its nature and the causes which produce it. The remaining two-thirds of the book is devoted to

treatment, remedial, dietetic and hygienic. The author regarding eczema as a constitutional disease, of which the skin lesions are the outward manifestations, this treatment should be both general and local, and here, as in other diseases, the physician should be guided by circumstances in the selection of his remedies; the condition of the patient should be taken into consideration and all departures from health should be looked into and rectified. The author knows of no specific, and warns against the common error of regarding arsenic as such. In regard to treatment he enters most minutely into details, and in such a clear manner that whoever has read his directions cannot but grasp the principles that guide him, and will have no need of blindly following dogmatic rules. The chapter on diet and hygiene is equally comprehensive. A formulary is also appended, giving the combinations most frequently used by the author. These are not intended to be used as fixed formulæ, but only to represent the average method of use of the remedies which are of service in eczema, and must be altered to suit the case in hand. The whole work is fascinatingly interesting, and we recommend it to the general practitioner, for whom it is chiefly written, as a most valuable guide to the intelligent treatment of one of the most frequent as well as troublesome of skin affections.

A Manual for Hospital Nurses and Others Engaged in Attending on the Sick. By Edward J. Domville, L.R.C.P. Lond., M.R.C.S. England; Surgeon Exeter Lying-in Charity, etc. etc. Fourth Edition. Philadelphia: Preasley Blakiston, 1881. Small 8vo, pp. 96. Price 75 cts.

This little manual is divided into four parts, treating respectively of the nurse's duties toward herself, her superiors, her fellow-nurses and servants, and her patients. Part iv, which takes up the larger portion of the work, is again divided in two sections. Section i contains minute instructions as to the management of ordinary cases, with full directions about ventilation, the management of the fireplace, bed-making, washing, dressing and feeding patients, the dressing of wounds, administration of medicine and other remedial agents, the laying out of the dead, and preparation for post-mortem examination. In Section ii we find similar directions for the management of extraordinary cases, such as accidents of all kinds, preparing for operations, and the treatment of hysteria, epilepsy, paralysis and fevers. To this is added an appendix, containing valuable directions for preparing remedies, food, etc., with table of weights and measures, and a glossary of medical terms. Nurses will find this book very useful.

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PROGRESS OF THE MEDICAL EDUCATION OF WOMEN IN EUROPE.

In spite of tacit or outspoken opposition there is, year by year, a steady though slow increase in the encroachment of women on our profession. They were not admitted as delegates to the last International Medical Congress, owing, it is whispered, largely to the determined opposition of her august and imperial Majesty, Queen Victoria, who is too staunchly conservative even to approve of the education of her own sex. It is said that she intimated that she should "withdraw her patronage" from the Congress if a single petticoated delegate was admitted. What terrible results would have followed such action on the part of her Majesty we are not informed, but it seems to have been taken for granted, all round, that it would have been something very frightful indeed. Perhaps the 3000 learned men who had there assembled would have been struck dumb, which would have been about the greatest affliction to them, on the occasion, which occurs to our imagination. Think of the dis-

astrous effects of having to carry back the pent up and bottled eloquence with which each one came prepared!

The Queen, however, either followed a pretty general sentiment among British physicians, or else, because it is her sentiment therefore it is general; not an unlikely suggestion. It is exhibited in an address delivered last winter by that genial and learned physician, Dr. THOMAS MORE MADDEN, of Dublin, an extract of which we append, as being quite exquisite in its way. The Doctor said:—

In Dublin we have, up to this time, escaped any permanent settlement of those erratic medical hybrids, the lady doctors, despite the encouragement afforded them by the Irish College of Physicians, in their hopeless contest against Nature's laws. That some women have passed unscathed through the ordeal of studentship—to which none of you would wish to see any lady of your own families subjected—is, I am sure, true; and that a few of these persons have shown considerable medical ability is beyond doubt. There are some masculine women, just as there are some effeminate men. Neither are good types of their kind; and it needs no serious argument to prove the futility of any attempt founded on such exceptional cases, on the part of either sex, to fill the place and assume the functions of the other.

Nevertheless, right in Great Britain these "erratic hybrids" appear to be gaining ground, with a singular indifference to "Nature's Laws;" although, perhaps, Dame Nature, who is generally supposed to be a lady even more potent than the Empress of the Indies herself, has not fully informed Dr. Madden what her laws are on this particular subject; perhaps he has substituted for her laws some obstinate old prejudices, which are the private personal property of Dr. Madden, and possibly Dame Nature would smile broadly to be told these ancient and now rather battered articles were her divine and unchanging laws.

However that may be, the work goes on. We note in our recent English exchanges that last month the inaugural address of the eighth winter session of the London School of Medicine for Women was delivered by Miss ANNIE BARKER, M.D., who gave a concise sketch of the history of the movement for the medical education of women, and then congratulated the students

on the way in which they had worked to maintain its dignity and reputation, and especially called attention to their achievements at the recent examinations of the London University, when Miss FRANCES PRIDEAUX took the gold medal and exhibition for anatomy.

Miss BARKER said that, not only were the ladies working well as students, but they were beginning to spread themselves gradually and quietly over the country, becoming centres of usefulness in the towns in which they established themselves, and thus supplied a need which was making itself more apparent, now that there was a possibility of obtaining the help of skilled women doctors. Of the twenty-six ladies now on the register, twelve were practicing in England and Scotland. Dispensaries for women and children have been founded by lady practitioners at Manchester, Leeds, Bristol, and Edinburgh, and in the most recently founded, that at Manchester, by Dr. ANNA DAHMS, the number of patients had so far outstripped the power of one practitioner, that the small fee charged for each visit had had to be raised to keep it within bounds. A Provident Dispensary had been established at Notting-hill, of which Mrs. MARSHALL, M.D., was the medical officer. Miss BARKER bore personal testimony to the progress that had been made in Birmingham, and expressed her pleasure in speaking of the fairness, practical good sense, and kind feeling with which medical women had been received there. The prejudices against women doctors must, Miss BARKER told the students, be overcome, not by showing ill-will in return, but by honest, true work, and by showing that though they have entered a profession, they have lost none of the refinement and dignity of true gentlewomen.

On the continent also there is activity in this direction. In the Russian medical journal, *Vratch*, Dr. HERTZENSTEIN, devotes an article to medical education in regard to women in Russia, from which we learn that since the St. Petersburg school of medicine was opened to women, in 1872, 796 students matriculated; 72 per cent. of the pupils were under 22 years of age; between 22 and 30, 24 per cent.; above 30, 3 per cent. According

to social condition, they are classified: single, 89.4 per cent.; married, 9 per cent.; widows, 1.6 per cent. As the course of studies is five years, only the first three classes had graduates; their number is 111, corresponding to 266 matriculates. During 1879, 453 students pursued the study of medicine, and as 111 graduated and 30 died, 202, or 25 per cent. abandoned their studies. This large percentage is due to the fact that the majority of students are obliged, while studying, to earn their living by giving lessons, literary work, etc., a condition not favorable for a steady study of five years.

NOTES AND COMMENTS.

On the Communicability of Tuberculosis.

In a recent number of *Deutsches Archiv für Klinische Medicin* Dr. Tappenheimer, of Meran, gives the results of a series of carefully conducted experiments, extending over a period of four years, and undertaken for the purpose of ascertaining by what means tuberculosis may be communicated from man to man. Having already, in 1877, established the fact that the inhalation of finely pulverized tuberculous sputa invariably produces pulmonary tuberculosis in previously healthy dogs, he naturally concluded that this might be one of the means of infection in the human species. His attention was next directed to the alimentary canal as a point of entrance of the infectious particle, but repeated experiments with dogs fed on food mixed with the sputa of tuberculous patients gave only negative results, and although he does not deny that this may be an occasional mode of infection, yet he thinks that when such is the case there may have been an abrasion somewhere along the alimentary canal, and that the infectious particles have been communicated by inoculation. Next, in order to settle the question as to whether by the coughing of consumptives minute particles of infectious matter are not thrown into the atmosphere and there suspended to be inhaled by others, he confined two rabbits in a small box provided with an aperture into which he had a patient cough, whenever so inclined in daytime, for two months, at the expiration of which the rabbits, that apparently had remained perfectly healthy were killed and examined, without any trace of tubercles being found. The communicability of tuberculosis being, however, an indisputably established fact, the author comes to the

conclusion that, as infection unquestionably takes place through the inhalation of minute particles suspended in the air, and as no such particles capable of communicating the disease are thrown off by coughing, only one theory remains tenable, viz., that the sputa of tuberculous patients falling on floors and carpets, there dry and are pulverized by being walked on, and being subsequently raised with other dust on sweeping, they are again inhaled by persons in the room. Further experiments are being made by the author, who promises to communicate the results later on.

**Perforation of the Intestine by Ascarides
Lumbrieoides.**

Dr. E. Marcus, of Frankfort am Main, reports in *Deutsches Archiv für Klinische Medicin*, the case of a girl, aged thirteen and a half years, of healthy family, but since her fifth year excessively given to the practice of Onanism, for which various kinds of vermifuge had been frequently prescribed without any worm having ever been observed in her stools. In the morning of April 7th she had gone to school in her usual good health, but returned home at noon complaining of severe pains in the abdomen, which in the course of the afternoon gradually increased. She also vomited several times, a greenish substance. In the evening, when the Doctor was called, she was in such pains that an examination was impossible. The bowels were moved with an enema of oil resini. The next day the abdomen was greatly distended, and painful to such a degree that it could not be touched. The face was pale, pulse small, and feet cold. Perforative peritonitis was diagnosed. After seven days of terrible suffering she died from collapse. At the autopsy, twenty-eight hours after death, an enormous quantity (considerably more than one gallon) of highly offensive pus was found in the peritoneal cavity, but no feces. Between the intestinal convolutions were found three large round worms, two of which were dead, while the third showed signs of life. In the descending portion of the duodenum, about $4\frac{1}{2}$ cm. below the first flexure, was found, on the inner side, a perforation of about 6 cm. in length. Such cases are unquestionably rare.

Treatment of Diphtheria with Ice.

M. de Bleyne affirms that the results he has obtained from this treatment during the past sixteen years permit him to affirm that "diphtheria treated with ice is constantly cured."

The following mode of administration is re-

commended: 1st. Introduce into the mouth of the little patient a small fragment of ice every ten minutes, without any interruption, whether the child is awake or sleeping. Young sleeping children absorb the ice without awakening. The fragment of ice should be swallowed when it is almost melted. 2d. Do not cease giving ice until the false membranes have entirely disappeared; this happens from the second to the eighth day. 3d. Keep good watch over the throat, and if the membranes reappear, commence the treatment, and in fact for some days it will be better to continue giving ice every half hour, lengthening the intervals each day. 4th. From the beginning give wine and good nourishing food.

Treatment of Hiccough.

As a general rule the various antispasmodics (*le Medecin Praticien*) have been put in use in obstinate hiccough; the extracts of hyoscyamus and belladonna, valerianate of zinc, etc. The following prescription, due to Dr. Park, has very frequently given good results:—

R.	Potass. bromid.,	3j
	Tr. sumbul,	3 ss
	Tr. hyoscyami,	3j
	Aqua camphore,	3j-3vj. M.

SIG.—Tablespoonful every two hours.

M. Marage recommends chloroform, as in the following mixture, by spoonfuls every three hours:—

R.	Syr. dioecod (Fr. cod.),	30 grams
	Syr. menth. piper. (Fr. cod.),	12 grams
	Chloroform,	2 grams
	Ol. amygd. dulc.,	60 grams. M.

Gola has employed, with success, sulphuric acid, 4 grams in 500 grams of water; Juaritz' infusion of mustard.

Topical applications, acupuncture, rheophores, to neck and diaphragm, etc., should be reserved for very obstinate cases.

Ovarian Tumor in a Hen.

At a recent meeting of the St. Louis Obstetrical and Gynaecological Society, reported in the *Obstetric Gazette* for August, 1881, Dr. Engelmann exhibited an ovarian tumor taken from a hen. There were two tumors; one was rather larger than a large-sized orange, and the other smaller—about the size of an egg. It was a hard mass, in very distinct layers, of brick red and orange color, but apparently not forming a distinct tissue—containing no blood vessels. The centre of the tumor did not seem to be an organ-

ized mass, but a hollow cyst, surrounded by a dense conglomerate and inorganic mass. Comparatively speaking, it was a very large tumor, its weight being considerably greater than that of the body of the majority of hens.

Treatment of Vulvar Pruritus.

Vulvar pruritus is one of the most obstinate affections that one can have to treat. In the *Jour. de Méd. et de Chir. Pratiques*, we learn that M. Besnier, after trying all forms of application in a case at the St. Louis Hospital, found that most benefit was obtained from the following unguent:

R. Ung. diachylon simpl. (Fr. cod.),
Ol. olivæ, $\frac{1}{2}$ equal parts. M.

On the other hand, M. Delaporte, recommends, in the same pruriginous affections, the following lotion:—

R. Soda carbolat, ss
Aqua Colon, iiiss
Glycerinæ, iiiss
Aquaæ, x. M.

Lotions with this wash should be made whenever irritation is intense, and particularly at bed-time. The liquid should be applied cold, with a fine sponge.

Carbolic Acid in Whooping Cough.

Dr. J. Baugh states, in the *Canada Lancet*, Nov. 1, 1881, that having recently had several patients suffering with whooping-cough, and having administered the usual remedies without getting the least benefit, he commenced giving carbolic acid and glycerine, in small doses, repeated every hour, which treatment yielded very satisfactory results. The paroxysms of coughing and the vomiting, which in some cases were very severe and frequent, were reduced almost to a minimum in less than twenty-four hours. For a child three years old he gives the following:—

R. Acidi carbolici, grs. iv
Glycerini, 3 iss
Syr. simp., 3 iv
Aquaæ ad 3 ij. M.

SIG.—A teaspoonful every hour.

Treatment of Tertiary Syphilis.

M. Hardy, as we read in *la France Médicale* uses very frequently the following solution:—

R. Potass. iodid., 3 vss
Hydrarg. biniodid., gr. ij
Aquaæ destil., 3 x. M.

Of this solution a tablespoonful may be taken at first, one in the morning, another at evening.

This solution replaces, advantageously and economically, Gibert's syrup, and is not liable to undergo alterations like this last.

SPECIAL REPORTS.

NO. XIX.—LARYNGOLOGY.

Numerous and acute observers are making the subject of laryngeal disease a special study, and their results have already led to a complete revolution in the diagnosis and treatment of many of this common class of maladies. From the considerable literature of the branch we shall cull a series of observations most interesting to the profession at large.

REST IN THE TREATMENT OF LARYNGEAL DISEASE.

How and how far to secure rest of the part in these diseases, was discussed last winter in a paper by Dr. BEVERLY ROBINSON. The functions of respiration and phonation demand the constant action of the intrinsic laryngeal muscles. To control these actions as much as possible, is to secure the best possible conditions for cure. After insisting upon the advantage of rest in acute and chronic laryngitis, the author recommends, in subacute cases, that "a happy medium" course of treatment should be observed, not allowing the voice to grow rusty, but, at the same time, limiting the vocal work to slight and occasional efforts. The working of the larynx should be carefully watched. If the cords cannot approximate the middle line, but leave a slight oval chink between them, complete rest is enjoined. Intralaryngeal appearances sometimes lead into error of treatment. In some patients whose vocal cords invariably appear red and inflamed, but who are still capable of producing accurate and full notes, the moderate use of the voice is beneficial; in others, in whom the mucous membrane is only slightly reddened, but the muscles are incapable of proper motion through loss of contractile power, owing to intercellular infiltration and consequent compression of the peripheral nerve fibres, singing and talking should be forbidden.

HYSTERICAL AFFECTIONS OF THE LARYNX.

A translation of an interesting article on these affections, from the French of Dr. THAON, of Nice, is given by Dr. Duncanson, in the Edinburgh *Medical Journal*, October, 1881. The article has appended to it a very excellent bibliography of the subject, which will prove a great help to students. We select some of his more interesting observations:—

Hysterical Aphonia, is caused by paralysis of

the muscles of the larynx. The muscles most commonly seized are the vocal muscles. Nevertheless, paralysis of the posterior crico-arytenoids is not absolutely rare, and we have known a case of this kind in which a hysterical female has been twice tracheotomized. A primary symptom of hysterical paralysis is that it is frequently bilateral, or else the paralysis is one-sided, but complicated with paresis or contraction of the opposite muscle. Thus hysterical aphonia is often complete. It is, besides, a common enough occurrence, this diffusion of hysteria in organs which are impaired, and which are not symmetrical, as the ovaries.

A second symptom of hysterical aphonia is, that it frequently gives a laryngoscopic image differing the one day from the other.

A third characteristic is to leave the cough intact, which even gains in intensity and breaks forth into roaring. We have even seen some cases of hysterical aphonia where the patient could sing, and some who could speak in their dreams.

Spasm of the Larynx.—The hysterical laryngeal spasm has its characteristics which distinguish it from the spasm of infancy, from the spasm from an irritation of the vagus nerve or of the recurrent, and from the spasm from the introduction of a foreign body into the larynx. This spasm is expiratory or inspiratory. The expiratory spasm is nothing else than the whimsical cough of the hysterical, a symptom common to nearly every hysteric, but a symptom the most painful. In a boy fourteen years of age we have counted as many as twenty-five coughs per minute during weeks. This child was cured by a heavy rain which overtook him during a walk, and to which he was exposed for two hours. At other times the hysterical cough is cured by the intercurrent affection which has been its primary cause. We know the fortunate consequences of the cure of uterine maladies from the hysterical cough. This hysterical cough was the cause of many errors being made before the laryngoscope had unveiled the exact state of the larynx. When it is met with in young girls, associated with supplemental haemoptysis, it gives rise to a prognosis of which the gravity is only apparent.

Laryngeal Hyperesthesia.—Hysterical laryngeal hyperesthesia is very common; it is, perhaps, the most frequent manifestation of hysteria in the larynx. Sometimes it is diffuse, and manifests itself by various sensations—sensations of burning, tearing, pulling, going from the throat to the sternum, sensations of a foreign body. Who does not remember being called out in great haste to see a woman who had swallowed a pin, a fish-bone, etc., and who was in the greatest agony. After a conscientious examination, we find that the patient has been mistaken by a false sensation, and that we, ourselves, have been the victim of a false alarm. But it is not always easy to convince these same subjects that it is not rare to find among them veritable cases of laryngeal hypochondriasis.

Laryngeal Anesthesia.—The result of our inquiry on this subject is, that in only one-sixth of hysterical patients we have met with more or less complete anesthesia of the epiglottis. It is the

epiglottis which is frequently attacked by anesthesia, and frequently to the exclusion of every other part. Anesthesia may have completely mastered the whole of the larynx, and be absolute. Generally it is bilateral, and is not limited to any well-defined nervous territory. This characteristic sometimes sufficiently distinguishes it from other anesthesias, which are as extensive as one of the areas of one of the superior laryngeal nerves, such as diphtheritic anesthesia. Another important and special characteristic of this anesthesia is that it is frequently associated with a cutaneous patch of anesthesia on the front of the neck, a peculiarity already noticed with reference to hysterical aphonia. The simple introduction of the mirror is sufficient to cause many of these anesthesias to disappear.

CHOREA OF THE LARYNX.

Under this name, Prof. VOLTOLINI describes a curious case in a 12 year old girl (*Schmidt's Jahrbuch*, No. 1881).

She suffered from an obstinate cough all winter, and suddenly, in the spring, was seized with an inability to cough and violent strangling whenever she attempted it. She gasped, became blue, and seemed on the point of asphyxia.

Having been treated in vain by the local physician, she was taken to VOLTOLINI, who found the larynx entirely normal, and during the examination the child coughed naturally. Deciding that it was a case of disordered innervation, she was treated with bromide of potash and faradization, and gradually improved.

ANÆSTHESIA OF THE LARYNX.

After much experience, Prof. SCHRETER has adopted the following plan for producing anesthesia of the larynx (*Wiener Med. Zeitung*, March, 1881).

The day before the operation the larynx of the patient is painted twelve times with pure chloroform, the object of which is to produce a hyperæmia of the mucous membrane, and so prepare it for the reception of the narcotic. This lasts from seven to nine minutes, and, as it causes a violent burning, is the most disagreeable part of the operation. After an hour, twelve paintings of concentrated solution of morphia (muriate of morphia, 1 part; distilled water, 10 parts) are applied, the patient being told to expectorate after each application, and thoroughly cleanse his mouth and throat with a tannin gargle. He then sleeps, but must be watched during the night by the physician or other competent person, with proper antidotes (such as tea, coffee, etc.) in readiness. Dr. Schreter has, however, found that when the proceeding has been conducted with the above caution, there have not been any symptoms of poisoning, or, if any, but very slight. The larynx, by eight o'clock the next morning, has usually become so insensitive that the operation may be at once proceeded with. Occasionally, the morphia application has to be repeated. Excellent as Dr. Schreter considers this method to be, he does not make

use of it often, for the reason that it is seldom necessary. For the removal of polypi, etc., a preliminary practice of introducing the sound a few times is sufficient. The painting with the chloroform is so disagreeable a proceeding, that he does not willingly resort to it.

NEURALGIC ANGINA OF THE THROAT.

This not very rare affection has been recently described by two writers, Drs. SAINT PHILIPPE, of Bordeaux, and HUCHARD, of Paris (*London Medical Record*, June, 1881). It is an affect on of the throat, characterized by a severe lancinating pain with throbbing like that of an abscess, while there is nothing to be seen except a little redness, and very slight, if any, swelling. There is no ulceration nor glandular enlargement. The pain is only slight in the morning, but comes on with severity in the middle of the day, and becomes intolerable at night. The pain persists in spite of gargles. This angina, like orbital neuralgia, may occur after a diffuse catarrhal inflammation. The neuralgic nature of the angina is shown by the treatment; two days being sufficient to mitigate, if not to completely relieve, the pain. Dr. SAINT PHILIPPE prescribes 8 to 10 grains of sulphate of quinine, to be taken two hours before the crisis, in the middle of the day, and sustains the action of the first dose by a smaller quantity, 4 to 5 grains given in the afternoon.

Dr. HUCHARD says of it:—

1. There is a great disproportion between the intensity of the pain and the slightness of the hyperæmia and swelling.
2. The hyperæmia is subordinate to the neuralgia, the latter preceding and perhaps following the former.
3. The pain has special characters.
4. Treatment by gargles is insufficient; and the best effects follow anti-neuralgic treatment, viz., sulphate of quinine and paintings with glycerine and morphia.

CATHETERISM OF THE TRACHEA IN CROUP.

A correspondent writes to the *British Medical Journal*, June, 25, 1881, that he was called to a girl, 2½ years old, for croup.

It was evident by the pulse, which was about 150 and almost imperceptible, that unless some relief could be given, the end was not far off. The face gradually became pale, and wore a distressed expression, and the lips were of a livid blue color. As the mother objected to tracheotomy, and as emetics, hot bath, and the ordinary routine treatment, had been previously tried, I introduced a large (No. 12) gum-elastic catheter into the trachea, with less difficulty than I anticipated—having first gagged the child's mouth with a cork, for want of something better, and depressed the tongue with a spoon. After a severe paroxysm, she succeeded in getting a pretty good breath, and the next expiration was followed by the ejection of muco-purulent *débris* and sticky phlegm through the tube. In about ten minutes these convulsive efforts ceased—the

child, in the meantime, getting a good amount of air into her lungs. In half an hour her face was flushed, but had lost its lividity, and the breathing was fairly comfortable. The tube was retained by tape tied round the child's neck, and was removed twenty-four hours after its insertion, when the temperature had fallen to 100° Fahr. and the pulse to 110. Five days later she was running about the house, not much the worse for her dangerous illness. I observed hardly any difficulty in swallowing liquids after the first two or three attempts, when the tube had been introduced.

RELAXATION OF THE UVULA.

An article on this subject is condensed by Dr. LENNOX BROWNE, in the *London Medical Record*, from the original of Dr. LABUS.

Dr. LABUS finds that relaxation of the uvula is a by no means unusual cause of impaired voice, and considers that it deserves a greater degree of attention than it has so far received, and especially because it is often overlooked. Disorder of phonation from this cause is due not so much to elongation of the uvula as to the difficulty which, on account of its relaxed condition, the subject experiences in making various necessary movements of the soft palate during the formation of different sounds.

Singers suffering from an unduly relaxed uvula complain that the voice has lost in strength, and become hollow and thin, and of inability to preserve an even coloring during emission of certain notes in the middle and upper registers.

Relaxation of the uvula is of two kinds, of which infiltration and hypertrophy of the sub-mucous tissue is the kind most commonly seen, accompanied not unfrequently by hypertrophy of the azygos muscle; the second kind is due to paresis or even complete paralysis of the same muscle. It is this last-named form which often escapes observation, for the uvula is apparently in a normal condition, and the laryngoscopic mirror, applied to discover lower down the voice-defect, conceals the fact that the uvula remains immobile during production of the emitted notes.

Among exciting causes must be noted the diffusion of a coryza, irritations produced by alcoholic drinks, and particularly by tobacco, weeping, singing from the throat, and abuse of the timbre sombre.

From his experience, Dr. LABUS believes only in a radical cure, namely, that of removal of so much of the relaxed uvula as is deemed necessary, according to the varying condition in each patient. In no case should the ablation be entire, but merely sufficient to restore to the

resonating portion of the organ its normal volume and form. He has performed many of these operations, and has never observed a deterioration of the voice, but on the contrary his patients have almost invariably assured him of an amelioration.

(To be Continued).

CORRESPONDENCE.

An Aneurism of the Superficial Palmar Arch Caused by a Catfish Fin.

ED. MED. AND SURG. REPORTER:—

On May 22d, 1881, L. P., while fishing, caught a small catfish. In attempting to unhook it he was finned in the palm of the left hand. The small wound bled very freely, in a steady stream, and was extremely painful. The hemorrhage was easily controlled by slight pressure, though the pain was so severe that he "paid but little attention to the bleeding."

He first applied a cloth saturated with turpentine, and later in the day, the pain continuing, he began poulticing. The hand was poulticed continuously from the 22d to the 30th, going through the whole list of household poultices of any repute in the neighborhood. After the first day there was no hemorrhage for some time. Continuing to suffer from a throbbing pain, he concluded on May 30th, to seek medical advice.

Presenting himself at our office on that day, my partner, Dr. J. E. Hill, and I, found upon examining the hand, a small pulsating tumor located in the course of the superficial palmar arch to the radial side. The tumor was about the size of a small acorn, and the pulsation could be seen as well as felt. The pulsation could be stopped by pressure on the brachial artery, and the tumor would then empty itself. Direct pressure on the tumor would empty the sac, and cause all pulsation to cease. There was the "cutis anserina" appearance of the hand from the continued poulticing. Pain was marked. Patient looked haggard and worn. We decided to apply direct pressure to the aneurismal tumor, and attempt to relieve and effect a cure in that way, not being willing at that time to subject him to any operation by ligation. A compress was made, carefully fitted directly over the aneurism, and snugly covered with a roller bandage. An injection of morph. sul. gr. $\frac{1}{2}$ was given, and the patient sent home with directions to loosen the bandage, if absolutely needed, and to return at once to the office; but if the circulation continued good enough to keep the fingers warm, to return within a week.

June 1st. Returned, having been compelled to loosen the bandage. This was readjusted, morphine directed and patient sent home.

June 5th. Patient reported again. We removed the bandage and examined the hand. Pulsation had decreased fully one-half. Re applied the compress. Directed morphine pro re nata; to carry the hand in a sling, and under no circumstances to use it.

June 9th. Returned. The hand had felt so

much better that he had used it, and as a result was suffering more. Bandage and compress removed. Pulsations as marked as ever; some extravasated blood in the tissues. Reapplied bandage, etc., and again cautioned him against the use of the hand.

June 18th. Returned; pulsation less; continued treatment.

June 15th. Returned. On the 14th hand had felt so much better that he had gone to the field overlooking some work; had fallen down, and in falling caught on the hand; a slight hemorrhage had occurred, and he had suffered much pain from that till now; bandage and compress were removed; free arterial hemorrhage took place, which was easily controlled by pressure on the radial or brachial artery. Decided to operate at once, and insomuch as the sac was ruptured, to tie the palmar arch; compress and bandage re-applied, and an Esmarch tourniquet tightly covered over that, the patient in the meantime being put under the influence of chloroform and thoroughly anesthetized. An incision two and-a-half inches in length was made in the palm of the hand, just over the aneurismal tumor, and carried down to the superficial arch, where the sac was found. The sac was laid open, and a firm coagulum turned out, showing the wisdom of the first course of treatment. A ligature was passed on the radial side of the sac, but so tied as to include the sac in the loop. The tourniquet of the Esmarch's bandage was loosened, and free oozing took place, the first drop of blood that had been lost up to that time. This continued for a few moments, causing some apprehension of the failure on the part of the ligature, but position, slight compression, and free application of cold carbolized water, stopped all hemorrhage. The wound was closed with carbolized silk sutures, dressed with carbolized cloths kept wet. The larger portion of the wound healed by first intention. The case is reported to show the good results that might be obtained in small aneurisms, although traumatic, by pressure, if perfect rest could be attained and preserved; and when that fails, the importance of ligation of the palmar arch before tying either the radial or brachial artery, as taught in most of the text books.

T. J. HAPPEL, M.D.

Trenton, Tenn.

NEWS AND MISCELLANY.

Results of the Contagious Diseases Act in England.

As our readers know, this is an Act to prevent the spread of syphilis. Its workings are briefly summed up in a recent address by Dr. G. P. Field, of St. Mary's Hospital Medical School, London, as follows:—

The Contagious Diseases Act is still on its trial, on its original limited scale, at the larger naval and military stations. It has been the case now for many years, again lately shown by Surgeon-General Lawson, before the Select Committee of the House of Commons this session, that the amount of primary venereal disease is considerably less than half at the stations under the Acts, as compared with those not so protected. But, in addition to this, and what is of still more

importance, the number of admissions for secondary disease has been shown to be during recent years as much as 40 per cent. less at the protected places than at the others, where it has remained as nearly as possible stationary. It would be of incalculable advantage to the public if these Acts could be extended to all the large centres of population. Seaport towns, such as Liverpool and Hull, are known to be hotbeds of venereal disease of all kinds. It is impossible, however, in the face of the fanatical and unreasoning opposition which is still being carried on, to hope that much can yet be done in this direction. The Anti-Contagious Diseases Acts Association, as shown before the Committee of the House of Commons, collects £3000 a year to carry on the agitation.

The opposition is similar in character to that which prevails against vivisection and vaccination, and is almost confined to places far away from the working of the Acts, where there is an almost complete ignorance as to their operation and effects. The testimony given this session from places where these measures are in operation is overwhelming, not only as regards the diminution of disease, but the improved condition of the towns, in the suppression of street solicitation, riotous demeanor, etc. Clergy of all denominations have given most striking evidence to this effect, as well as to the facilities afforded for the reformation of fallen women and the suppression of juvenile prostitution, which they find now to be almost a thing of the past. It would be well if the profession generally would make themselves more familiar than they are with these facts, so as to be able when opportunity offers to guide public opinion in the right direction.

Sanitary Condition of the Panama Canal Laborers.

A letter from Panama, October 6th, gives a doleful account of the condition of health among the employees on Lessep's canal. The writer says: Within the last week five canal men, French, have died of yellow fever in the Foreign Hospital in this city, and there are many suffering from the same cause. Two Sisters of Charity who recently arrived from France have also succumbed to the fever. Capt. Bennett, of the American whaling bark *Matilda Sears*, who arrived a week ago, died of yellow fever at the Grand Hotel, on the morning of the 3d instant.

Gen. Gabriel Neird, died of smallpox at Peno-mene, on the 15th ultimo. There have been upwards of 1000 fatal cases in that small village within the past three months. The people refused to be vaccinated, and they died like rotten sheep. In many of the small thatched houses whole families have died. There is no medical aid to administer to the relief of their suffering. A member of the Panama Canal Company, who has visited several stations on the line, says there are about sixty cottages erected, and two wooden bridges in course of construction, and that the entire line from Panama to Gatun, seven miles from Aspinwall, has been cleared and is ready for operation. Very little more can be executed before the end of the wet season, which will be in December. Many laborers have arrived from Port Lima, and quite a large number are expected from Jamaica

and the other West India Islands. At Gatun they are having some sixty houses erected, besides a hospital, workshop, blacksmith shop, and other necessary conveniences for mechanics and laborers. Already a French doctor has taken charge, besides a full complement of efficient nurses, who will give their special attention to the sick, and make them as comfortable as possible.

There is little doubt, from these and other reports we have seen, that there is a sad lack of proper sanitary provisions for this undertaking. It is certain that if such neglect continues it will foil the best attempts of the engineers to complete the work.

Dividing the Business.

The Parisian municipal authorities have presented a new law for consideration by the Chamber of Deputies. The first clause enacts that henceforth no one shall be permitted to practice both medicine and pharmacy. This is aimed at a class of practitioners who drive a flourishing business by giving gratuitous consultations in their back parlors, and furnish the medicines at a remunerative rate in their shops. The second clause forbids the sale or advertisement of all preparations not inscribed in the Official Codex, and if passed would be a deathblow to secret and proprietary remedies, which could only be delivered on the production of a prescription. It has been suggested that if the Chamber of Deputies should happen to be in the humor for medical reforms, an additional clause might well be framed forbidding instrument-makers to meddle with surgery. In Paris, as elsewhere, there is a very prevalent idea among manufacturers of surgical appliances that they are the proper persons to take charge of orthopaedic cases. It would be well if a short legislative measure could do justice to this and other popular errors touching the fitness of unprofessional persons for medical functions.

The Struggle for Life.

An English pharmacist, Mr. B. S. Proctor, writes, in the *Pharmaceutical Journal*, some observations about the struggle for success among the English druggists, so curiously similar to some we reported editorially a few months ago in reference to American physicians, that we must quote a few:—

"The difficulty is, how is a druggist to find customers enough to keep himself fairly occupied in handing out the goods and taking in the money. It can only come about by a large reduction in the number of druggists.

"I long for the millennial happiness of the time when men will have the certainty of an income proportionate to their conscientious and intelligent performance of duty, without the savage struggle to cut the throats of their neighbors. It is not a pleasure to me to do a little murder, but I cannot rid myself of the conviction that life is like a battle of hungry rats.

"According to the laws of nature and the constitution of the world we must eat our neighbors, or they will eat us. The best thing we can do is

to eat them, with all the civility and politeness imaginable, and when we have finished our repast, express our thankfulness in the words of the unsophisticated cannibal who ate the missionary and said he was a very nice man.

"At present, success in trade depends too much upon the valuable art of lying. I have no doubt any professor who could guarantee high proficiency in this art would meet with many pupils. Any man can grow strawberries and tell you they are very fine, but it is only a select few who know how to advertise them 'as large as hedgehogs and twice as sweet.'

"With pharmacists the times must be considered not only chronically, but essentially bad, so long as the number of pharmacists is twice as large as there is pharmaceutical employment for, and, as I said before, they do not like the low profit trade—it is unprofessional."

The Progress of Cremation in Europe.

At Copenhagen, at the last meeting of the Society for Cremation, the Secretary-General announced that the Society counted 1400 members, among whom were 83 distinguished physicians, and many Protestant ministers of well-known character. The apparatus adopted by the Danish Society can complete cremation in about an hour, and the operation does not cost more than from five to seven shillings. It is expected that this economical result will assist in extending the practice among the poorer classes, for in Denmark the cost of a funeral by the ordinary method is very high. In Italy, we learn from the same source (*Revue d'Hygiène*), as the result of a series of lectures in various cities of Europe, by the zealous propagator of cremation, Dr. Pini, new societies have been formed, which now number nine in all Italy; and new crematories have been constructed in Rome, Varese, Pavia, Cremona, Udine and Leghorn. A Milanese gentleman, Signor Loria, has offered the municipality of that city twenty thousand francs to establish and keep up, as a cemetery, a chamber in which the necropsy of bodies destined to be cremated shall be made, especially in cases where the malady has not been rigorously diagnosed, or where death has been in any way sudden, or its cause not certainly known. In Hungary, the sanitary town of Buda-Pesth has published, on the 5th of September last, a report, in which it declares incineration "salutary from the point of view of public health; but it should be permissive only, and a special cemetery set aside for the purpose". The committee strongly recommends the municipality to make the necessary arrangements for putting the project in execution.

The Compensation of Expert Witnesses.

A collection of decisions was not long since made by Dr. Stanford E. Chaillé on the question, whether a court can force a medical expert to testify without securing him adequate compensation.

The following facts are pertinent to this question: English courts have decided that a scientific expert need not attend a subpoena, that his

testimony cannot be forced, and that he must be compensated. In 1877 the Supreme Court of Alabama decided to the contrary; but, also in 1877, a circuit court of West Virginia concurred in the English view; in 1878, Judge Clark, in the case of the "State of Texas vs. Jasper Weathers," decided that he "knew of no law to force a physician to attend court, and testify as an expert, without compensation;" and also in 1878, the Supreme Court of Indiana, reversing the decision of lower court, maintained the expert's right to compensation. The Iowa Code of 1873, page 593, sec. 3814 (and probably the laws of some other States), wisely provides that "witnesses called to testify only to an opinion, founded on special study or experience in any branch of science, or to make scientific or professional examinations, and to state the results thereof, shall receive additional compensation, to be fixed by the court, with reference to the value of the time employed, and the degree of learning or skill required."

This law grants all the medical profession demands, and its enactment by the General Assemblies of all the other States should be urged upon them by medical bodies.

The Balance of Nature.

Says a writer in the *Popular Science Monthly*: It was some forty years ago that the organic chemists, represented by such masters as Dumas and Liebig, worked out the beautiful idea of the balance of organic nature. They showed that the vegetable and animal kingdoms carry on antagonist processes—each forever undoing the work of the other. The atmosphere is the arena of this subtle conflict, being poisoned by the animal world and purified by the vegetable world; while these opposing processes so effectually counteract each other that the air is automatically maintained in a condition fitted for the preservation of the living races.

New Facts Concerning Rabies.

The *Veterinary Journal* for October reports that a contribution to our knowledge of this disorder has been recently made by M. Galtier, after a series of experiments. These were made principally on rabbits, and the most important of the conclusions which he draws therefrom is, that the saliva of a mad dog, obtained from the living animal and kept in water, continues virulent five, fourteen, and even twenty-four hours afterwards. This fact has consequences which everybody should be aware of. Thus it seems that the water of a vessel in which a mad dog may have dropped some of its saliva in attempting to drink, should be considered virulent at least during twenty-four hours; and next, that as the saliva of a mad dog which has succumbed to the malady or has been killed does not lose its properties through mere cooling of the body, it is important, in examining the cavities of the mouth and throat after death, to guard against the possible danger of inoculation. M. Galtier tested rabbits with regard to rabies, and found it transmissible to them from the dog; also, the rabbits' rabies

from them to animals of the same species. The chief symptoms are paralysis and convulsions. The animals may live from a few hours to four days after the disease has declared itself. It is notable that the period of incubation is much shorter in the rabbit than in other animals, and this makes the rabbit a useful reagent for determining the virulence of a particular liquid.

Report of the Pension Bureau.

The annual report of the Pension Bureau for the last fiscal year shows that on the 30th of June, 1881, there were 268,830 pensioners; 28,740 pensioners were added to the roll during the year, and the names of 10,712 were dropped, leaving a net increase of 18,028.

Ethical Questions in the President's Case.

We prefer to avoid personal discussions in this journal, and it is only because the case is so public a one, and because the daily journals have taken it up, that as a matter of news we print the following from a daily newspaper in this city:—

"WASHINGTON, Nov. 4.—Dr. Bliss, after having had his own way in several medical articles relating to the treatment and the case of the late President Garfield, finds himself now in hot water. He has been expecting an attack from Dr. Boynton, the President's cousin, and was ready to sweep him out of existence by crying the single word "homeopathist." But this attack did not come, but one from another and unexpected quarter, viz., from the physicians who were members of the first consulting board. The *Medical Retrospect*, the official organ of the District Medical Association, in the number just issued, has a long article on the President's case which will attract the attention of the medical profession throughout the country. It contains letters from Surgeon-General Wales, of the Navy; Doctor Purvis, Surgeon of the Freedmen's Hospital; Doctor Townsend, Health Officer, and Doctor Lincoln, one of the best surgeons of Washington, contradicting in strong terms the statement made by Doctor Bliss in regard to the early treatment of the President. In short, these letters fix upon Doctor Bliss the brand of having deliberately been guilty of falsehood.

"The *Retrospect* article has created quite a sensation among the doctors, and it is the subject of very general talk. The part most discussed, however, is the statement in reference to the one made by Dr. Bliss, that he took charge of the President and retained charge at his request and that of Mrs. Garfield. In reference to this the *Retrospect* says:—

"In contradiction of this statement, we may say that it is susceptible of proof that President Garfield stated, after Dr. Bliss had resumed control of the case and refused admission to Dr. Baxter, that Dr. Baxter had been for many years and was still considered by him his physician, and that he had never expressed to Dr. Bliss a desire for him (Bliss) to take charge of the case. We are also prepared to say that Mrs. Garfield had no consultation with Dr. Bliss on the subject, and was at no time aware that her husband had selected him as his medical attendant."

"From this direct attack upon Dr. Bliss's veracity it is evident that he is going to be hauled up by the Medical Association of this District, sooner or later, for violating the code of medical ethics. It is going to be a pretty fight, but appearances indicate that Bliss is going to get the worst of it."

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service, July 1st, 1881, to September 30th, 1881.

Bailhache, P. H., Surgeon. Detailed as member of Board to examine keepers and crews of Life Saving Stations. Sept. 8th, 1881. To inspect the Service at stations in Maine, New Hampshire and Massachusetts. Sept. 9th, 1881.

Wyman, Walter, Surgeon. When relieved of special duty as medical officer revenue bark "Chase," to rejoin his station, via Washington, D. C. Aug. 18th, 1881.

Long, W. H., Surgeon. Detailed as chairman Board of Examiners. Sept. 12th, 1881. Granted leave of absence for twenty-four days. Sept. 24th, 1881.

Purviance, George, Surgeon. Detailed as member Board of Examiners. Sept. 12th, 1881.

Sawtelle, H. W., Surgeon. Detailed as recorder Board of Examiners. Sept. 12th, 1881.

Godfrey, John. Passed Assistant Surgeon. To proceed to Pascagoula, Miss., as inspector. July 27th, 1881.

Goldsborough, C. B., Passed Assistant Surgeon. To proceed to Havre de Grace, Md., as inspector. July 27th, 1881. Granted leave of absence for thirty days. Sept. 1st, 1881.

Cooke, H. P., Assistant Surgeon. Granted leave of absence for thirty days. Aug. 12th, 1881.

Carter, H. R., Assistant Surgeon. Granted leave of absence for eight days. Sept. 24th, 1881.

OBITUARY NOTICES.

FREDERICK HORNER, M.D.

Died in Warrenton, Fauquier County, Virginia. Frederick Horner, M.D., October 18th, in the seventy-sixth year of his age.

He graduated in medicine from the University of Pennsylvania in 1829; was attending physician in the Almshouse of Philadelphia, and then established himself at Phillipsburg, Pa. Subsequently engaged in cotton planting in Mississippi, and finally removed to Warrenton, where he practiced his profession with success for forty years. He was a son of Dr. Gustavus B. Horner, of Revolutionary memory, and a consistent member of the Episcopal church.

MEDICAL DIRECTOR BACHE.

Medical Director Benjamin Franklin Bache, a great-grandson of Benjamin Franklin, and for nearly sixty years an officer in the United States Navy, died in Brooklyn on Wednesday. Dr. Bache was born in Monticello, Va., in 1801. He was a grandson of Richard Bache, a Philadelphia merchant of high standing, and Sarah Franklin Bache, the only daughter of Benjamin Franklin. His grandfather came from England to this country early in life, and was the first Postmaster

General of the United States, from 1776 to 1782. Dr. Bache graduated from Princeton College when only 18 years old, and from the Medical Department of the University of Pennsylvania four years later. He entered the United States Navy as Assistant Surgeon in 1824, and in 1828 he was promoted to the rank of Surgeon. He was in charge of the Naval Asylum in Philadelphia from 1845 to 1847. He was retired February 1st, 1863, and in 1871 was appointed Medical Director, with the relative rank of Commodore. Dr. Bache bore a strong resemblance to his distinguished ancestor, and his side face was almost the counterpart of that shown in the best pictures of Benjamin Franklin.

DR. JOHN MENNINGER.

Dr. John Menninger died last week at his residence in New York City. He was in his 57th year, and was in the active practice of his profession. Up to the time of his death Dr. Menninger's career was an eventful one. He came to this country in 1850, a political refugee from Germany. He came directly to New York, following Gen. Franz Sigel and Carl Schurz. Here he began the practice of medicine, and soon secured a high place in popular estimation. In 1851 his family followed him to America, and here ever since they have all resided. The German Government confiscated Dr. Menninger's estates immediately after his flight, but subsequently they were given back. In this country, Dr. Menninger had little to do with politics. Throughout all his life he was a close student, being particularly interested in chemistry. He made many important discoveries. Tinned paper was his invention, and brought him much money. He was a member of the German Social Scientific Society. Death was caused by a polypus growth in the throat.

—Dr. William B. Hahn, of Pottstown, died on Thursday, aged 82 years. He was a candidate for the Legislature on the Democratic ticket in 1840.

QUERIES AND REPLIES.

Variola.

Mr. Editor:—Will you have the kindness to answer the following queries through the *REPORTER*?:—

1st. Has variola discreta ever been seen in conjunction with varicella?

2d. Are umbilicated pustules ever seen in varicella?

3d. Is it possible for variola discreta to pass through its various stages as mildly as an ordinary case of varicella?

Ans.—1st. It has.

2d. No.

3d. Yes.

Such are our opinions on these questions, the importance of which will occur to every reader. We shall be glad to publish any other views based on observation?

Formulas.

Mr. Editor:—Do you know of any book of formulas that contains a full list of formulas for the different elixirs.

E. J. T., M.D.

Ans.—No published book contains a full list.

Dr. S. H., of Pa.—We do not know of any regular

chartered medical college with the official name "Hypo-geo-Therapeutique Medical College," either in New York or elsewhere.

Dr. J. A. H., of Mo.—We recommend to you Napheys' *Transmission of Life*, price \$2.00. It is for lay readers. In his *Surgical Therapeutics* a full chapter on spermatorrhoea will be found.

Pleural Fistula.

Mr. Editor:—Please be kind enough to inform me what would be the proper treatment of an artificial pleural fistula with profuse discharge, in a patient very much debilitated? Fistula of several months standing and lung compressed. Dr. M. A.

We shall be glad to publish suggestions on the above.

Calomel and Bromide Potassium.

Mr. Editor:—Tell me through the *REPORTER* if calomel and bromide potassium are medicinally incompatible? Or what would be the effect of this combination in prescription. I make *Dover's Powder* (improved), with *Bromide*, instead of *Sulphate of Potassium*, and it is sometimes desirable to combine *Dover* and calomel. Respectfully, N. T. DALAREY.

Ans.—Laboratory experiments are poor guides for physiological incompatibility. Competent authorities say there is no physiological incompatibility between calomel and potassic bromide.

MARRIAGES.

BARTHOLOMEW—CUMMINS.—On October 12th, by Rev. M. Newkirk, D.D., Dr. H. L. Bartholomew, of Warren, Pa., and Sadie G. Cummins, of this city.

BLAKER—ROGERS.—On Thursday, October 6th, 1881, by Rev. D. K. Turner. Dr. George G. Blaker, of Flemington, N. J., and Miss Emma L. Rogers, of Buckingham, Pa.

BRAYTON—POLLOCK.—At the residence of the bride's mother, Wyoming, Ohio, by the Rev. Geo. M. Maxwell, Dr. Forrest W. Brayton, of Carey, O., and Mattie T. Pollock.

CAMERON—McDANIEL.—At the residence of the bride's father, Lily Pond, Gordon County Ga., October 3d, 1881, by the Rev. A. S. Patum, Dr. W. Hart Cameron, of Atlanta Ga., late of Cincinnati, and Miss Melie E. McDaniel.

CYPIHOT—CANDIEUX.—In Montreal, September 17th, 1881, at St. James Church, by Rev. M. St. Louis, pastor of Adamsville, Theodore Cypihot, M.D., of Claremont, N. H., son of Theodore Cypihot, merchant of Montreal, and Flora Candieux, daughter of Louis Candieux, also merchant of Montreal.

DEATHS.

BROWN.—Kate, wife of Dr. J. W. Brown, October 16th, 1881, in Tower City, Schuylkill Co., Pa., aged forty-seven years, five months and eighteen days.

COATES.—In Philadelphia, on October 16th, 1881, Benjamin Horner Coates, M.D., in his eighty-fourth year.

COCKEY.—Suddenly, on Tuesday morning, October 18th, at Frederick City, Md., Dr. Joseph C. Cockey, of Baltimore.

MENNINGER.—In New York, suddenly, on Thursday morning, October 27th, John Menninger, M.D., aged seventy-five years.

MONELL.—At Detroit, Mich., on Thursday, September 29th, 1881, Gilbert C. Monell, M.D., formerly of Newburg, N. Y. Interred at Omaha, Neb., October 3d, 1881.

NEWTON.—In New York, on Sunday, October 9th, 1881, Robert Safford Newton, M.D., in his sixty-third year.